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JOURNAL

OF

THE SOCIETY FOR THE PRESERVATION

OF THE

WILD FAUNA OF THE EMPIRE

Volume I.

1904

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SEP 16 1929

THE SOCIETY FOR THE PRESERVATION

OF THE

WILD FAUNA OF THE EMPIRE.

In the early part of the year 1903, it was reported that the authorities in the Sudan contemplated the abandonment of the excellent game reserve north of the Sobat river and proposed to reserve a certain area south of this river. The district proposed to be reserved is not suitable for a game reserve. It is not subject to the same supervision, and too distant to affect the regions which are liable to be shot out from Khartoum and other centres.

Through the exertions of Mr. Edward Buxton the following memorial was presented to Lord Cromer and Sir Reginald Wingate. Considerable correspondence followed between Lord Cromer and Mr. Buxton, with the result that Lord Cromer recognised the greater advantages of the present reserve and constituted the major part of it a genuine sanctuary.

MEMORIAL TO THE RIGHT HON. EARL CROMER, K.C.B., AND THE GOVERNOR-GENERAL OF THE SUDAN.

"The undersigned are deeply interested in the preservation of the larger animals, some of which are so rapidly disappearing in parts of Africa under British control.

"We regard this disappearance or diminution as something to be deplored and if possible to be arrested. Experience shows that the best means for effecting this purpose is by the establishment of sanctuaries in which the animals shall be strictly protected, combined with reasonable restrictions, operating outside them, on the number of each species which may be killed by licensees, and by other regulations. We rejoice that such laws have been established in the Sudan.

"We believe that the reserve established by order, dated October 16, 1901, and contained between the Blue and White Niles and Sobat river is peculiarly well designed for its purpose, as it contains representatives of nearly all the wild animals found in the surrounding territories, and at all seasons of the year, and because it is comparatively easy to control by the officers who patrol the rivers at frequent intervals.

"We have heard with regret that it is proposed to divide this reserve into two portions, one of which is to be allotted to officers under government and the other to non-official visitors to the Sudan.

If this change is made no part of the vast game area north of the Sobat and Bahr-el-Ghazal would be a reserve, and in our opinion the disappearance of the game would be only a question of time. We urge that there are wide areas outside the reserve especially on the Blue Nile, Atbara, and their affluents, amply sufficient for the recreation of the official and non-official class, and for visitors.

"We do not think that the constitution of a new reserve further to the south, on the Zeraf river, would adequately meet the case. Being comprised in the Sudd district, it is probably uninhabitable by many species at certain periods of the year, and is besides too remote for supervision, and indeed, to quote the words of your report, practically impenetrable to European sportsmen. The executive could have little knowledge of the conditions within it. Thus the constitution of such an area as a reserve would be merely nominal, and would have no effect, one way or the other, on the preservation of the game.

"We sympathise with much contained in your Lordship's report, dated February 26, 1903, as to the special privileges to be accorded to officers on the spot, but on this very ground we urge the necessity of taking all necessary measures to preserve the game, which will otherwise be seriously depleted, if not destroyed, a contingency which is not impossible by the light of experience in other parts of Africa.

"For these reasons we beg that you will arrange to receive a deputation upon this subject on your

return to London, and before a final decision is arrived at."

This Memorial was signed by: The Duke of Bedford; The Duchess of Bedford; Sir John Kirk, K.C.B.; Sir Edward Grey, M.P.; P. L. Sclater; S. H. Whitbread; C. Adeane; Professor Ray Lankester; John G. Millais (Author of 'A Breath from the Veldt'); Richard Lydekker, F.R.S.; Oldfield Thomas; F. C. Selous; E. N. Buxton; The Earl of Rosebery; Sir H. H. Johnston, K.C.B.; Sir Henry Seton-Karr, M.P.; H. A. Bryden (Author of 'Kloof and Karroo'); Henry Woodward, LL.D., F.R.S., etc.; A. Chapman (Author of 'Wild Spain'); Lord Avebury; P. B. Vander Byl; Sydney Buxton, M.P.; The Marquis of Hamilton; Sir W. Lee Warner, C.S.I.

On July 30, a meeting of the signatories took place at the House of Commons, and Mr. Buxton laid before them the correspondence. It was suggested that the signatories should form themselves into a society to encourage the protection of the larger game animals within the Empire, and invite others interested in the subject to become members.

Mr. Selous pointed out that the question of the slaughter of game animals by natives was an important one, and should not be overlooked.

In December a circular was issued in these terms:

"The Memorial to Lord Cromer and Sir Reginald Wingate relating to the Game Reserve in the Sudan has, we are happy to say, been entirely successful. The intention of abandoning that re-

serve has been given up, and it has been determined to retain it, and above all to constitute it for the first time a genuine sanctuary. This is a good instance of the value of bringing the public opinion of persons at home who are interested in the preservation of the African fauna to the notice of the officials on the spot. It seems desirable that those who have taken an interest in the matter should continue to act together.

"It has been suggested that a small association should be formed for the purpose of disseminating among its members information which is to be found scattered in a great number of official reports, and in other sources, dealing with game reserves, game laws, the amount of game killed, the gradual disappearance of species, etc., throughout Africa.

"The great object of the association is to further the formation of game reserves or sanctuaries, the selection of the most suitable places, and the enforcing of suitable game laws and regulations. At the present time the principal officials in the several departments in charge of the various sections of British Africa are impressed with the importance of immediate steps being taken for the preservation of African game, and have shown a readiness to receive suggestions from private individuals which encourages us to think that a society formed of persons interested in the subject, and, in many cases, possessing a knowledge of the districts, might render useful service.

"Where a contrary spirit prevails it may be desirable to take joint action.

"A subscription of 10*s.* per annum would cover the cost of printing. This is the only expense the society would have.

"It is proposed to hold a meeting at the Natural History Museum on December 11, at 4 p.m., to discuss the matter.

"Knowing that you take an interest in this subject, we trust that you will become a member of the Society and be able to attend the meeting."

A meeting was held on December 11, at the Natural History Museum, with Mr. Buxton in the chair.

Great satisfaction was expressed on hearing from the chairman that the memorial to Lord Cromer and Sir Reginald Wingate had been entirely successful, and that he had received a telegram from Lord Cromer stating that the Order had been made constituting an absolute sanctuary.

It was resolved that a society be formed for encouraging the preservation of the fauna throughout the British Empire, and that the principal officials in districts where game abounds be invited to become honorary members.

Attention was called to a report that the British South Africa Company intended to grant permission to the contractors constructing the railway to Victoria Falls and beyond to kill game for the purpose of feeding their workmen.

It was resolved that the directors of the company be communicated with and that a memorial be presented to them praying that such a course be not adopted.

It was decided to collect and print for circulation among the members all information from government reports and from correspondence abroad relating to the protection of wild animals.

A special Sudan Gazette (No. 55) containing "An Ordinance for the Preservation of Wild Animals and Birds," was published in January 1904, by authority of the Sudan Government.

Section 13 deals with the sanctuary for game.

A copy is annexed hereto (see Appendix No. 1).

Lord Cromer, in his report, Egypt and Sudan, 1903, published April 1904, handsomely acknowledges the efforts of this Society (Appendix No. 11).

On January 13, 1904, a memorial in the following terms was laid before the directors of the British South Africa Company by Mr. Buxton and Mr. Rhys Williams.

"We, the undersigned, are deeply interested in the preservation of the larger animals, some of which are so rapidly disappearing in parts of Africa under British control.

"We regard this disappearance or diminution as something to be deplored, and if possible to be arrested.

"We have heard with concern that it is proposed to grant permission to the contractors engaged in making the railway to Victoria Falls to feed their workmen by killing game.

"We are convinced that the granting of such permission would lead to very serious destruction of the larger animals, and the possible annihilation

of some very local species like the Pookoo in this district.

"The practical extinction of the American bison was in large measure due to the slaughtering of these animals to feed the workmen employed in the formation of the Union Pacific Railway.

"During the construction of the Beira Railway professional hunters, who were paid a fixed amount for each animal killed, destroyed the greater part of the game within reach of that Railway.

"On the other hand, over 20,000 men were provided with food during the construction of the Uganda Railway without any relaxation of the game laws in force in the Protectorates through which it runs.

"There is nothing to prevent similar measures being taken for provisioning the workmen on the Zambesi Railway. Even if the proposed permission led to the completion of the Railway at a slightly cheaper rate, the destruction of much, which makes this country so interesting, would be felt by many to be a loss to the whole Empire."

This memorial was signed by: The Duke of Bedford; The Duchess of Bedford; Sir John Kirk, K.C.B.; Sir Edward Grey, M.P.; P. L. Sclater; Professor Ray Lankester; John G. Millais; Sir H. H. Johnston, K.C.B.; Sir Henry Seton-Karr, M.P.; Lord Avebury; Sir W. Lee Warner; Hon. A. Holland Hibbert; Rhys Williams.

The directors stated that there was no intention of granting permission to the railway contractors

to kill game indiscriminately for the purpose of feeding their workmen, that strict game regulations had been in force in Southern Rhodesia for some time, and that they were then in process of revision to suit the requirements of Northern Rhodesia, and would be put in force without delay.

In the course of a long conversation the question of constituting sanctuaries for game was fully discussed, and the Directors decided to write to the Native Commissioners asking for their views as to the most suitable places for the purpose.

A small elephant-reserve has already been established around Lake Mweru.

The thanks of the Society are due to Lord Cromer for the attention that he gave to the views of those who presented the memorial to him, and to Lord Grey and the Directors of the British South Africa Company for the efforts they have already made to preserve the game in Rhodesia, and for the kind consideration they are showing to the suggestions of the Society.

It is very gratifying to learn that Lord Milner, notwithstanding the pressure of work since the declaration of peace, has found time to set apart a considerable area in the Transvaal as a game reserve, that an efficient game-warden has been appointed to superintend the reserve and to look after the carrying out of the regulations as to the killing of game, and that money is not being spared in paying for watchers.

The Society has been formed for the purpose of

encouraging the protection of the wild fauna in all British possessions. The members regard it as one of the heritages of the Empire, which, if it be once lost, can never be replaced; at the same time they are anxious to avoid the impression that the principal administrators of our Colonies and Protectorates are indifferent to the subject. On the contrary, they are well aware that most, if not all, of these servants of the Crown, wherever animal life abounds, share their views of the importance of the question, and have already in most cases initiated measures for its protection.

The Society appeals to them to assist it in disseminating information on the question by furnishing the honorary secretary from time to time with facts bearing on the protection of species, the causes of their increase or diminution, and the measures taken to counteract the latter.

Mr. Rhys Williams, of 2 Temple Gardens, E.C. has consented to act as Honorary Secretary.

APPENDIX.

No. 1.

SPECIAL SUDAN GAZETTE. Supplement to No. 54, December, 1903. Published by Authority of the Sudan Government.

An Ordinance for the Preservation of Wild Animals and Birds.

It is hereby enacted as follows :—

SHORT TITLE AND COMMENCEMENT.

1. This Ordinance may be cited as the "Preservation of Wild Animals Ordinance 1903" and shall commence immediately.

REPEALS.

2. The Preservation of Wild Animals Ordinance 1901 is hereby repealed except in so far as it repeals former Ordinances.

INTERPRETATION.

3. In this Ordinance, unless there be something repugnant in the context :—

The words "Hunt," "Capture," "Kill," and "Injure" include respectively attempting or aiding to hunt, capture, kill and injure.

The words the "Licensing Officer" denote any

Officer authorised by the Governor-General to grant licences hereunder.

The word "notified" means notified in the *Sudan Gazette*.

The words "This Ordinance" include any regulation or matter notified or prescribed under the provisions of this Ordinance and for the time being in force.

CLASSIFICATION OF ANIMALS AND BIRDS.

4. (1) For the purpose of this Ordinance, Wild Animals and Birds are divided into four classes, hereinafter called respectively Class 1, Class 2, Class 3 and Class 4.

(2) Class 1, Class 2, and Class 3 shall comprise the animals and birds specified in Part I., Part II., and Part III. respectively of the first schedule hereto.

(3) Class 4 shall include all wild animals and birds not comprised in the said last schedule.

(4) The Governor-General may at any time by notice published in the *Sudan Gazette* remove any animal or bird from any class, or include any animal or bird in any class.

CERTAIN ANIMALS AND BIRDS ABSOLUTELY PROTECTED.

5. (1) No person other than a native of the Sudan, whether the holder of a licence or not, shall kill, injure or capture any animal or bird included in Class I.

(2) Any person killing, injuring or capturing any animal or bird in contravention of this section shall be liable to a fine not exceeding £E. 100 or to imprisonment for a period not exceeding three months.

ISSUE AND PROVISIONS OF LICENCES.

6. (1) Licences for the hunting, capturing and killing of wild animals and birds included in Class 2 and Class 3 respectively may be granted by the Licensing Officer in his discretion to any person applying for the same. Such licences shall be of two kinds, called respectively Licence A and Licence B.

(2) No person other than a native of the Sudan shall hunt, capture or kill any animal or bird included in Class 2 unless he is the holder of a Licence A.

(3) No person other than a native of the Sudan shall hunt, capture or kill any animal or bird included in Class 3 unless he is the holder either of a Licence A or of a licence B.

(4) No holder of a licence shall during the currency of one licence capture or kill a greater number of animals or birds of any species included in Class 2 or Class 3 than the number specified in the first Schedule hereto opposite to the name of such species.

(5) The Governor-General may at any time by notice in the *Sudan Gazette* alter the number of any species of animal or bird included in Class 2 or in

Class 3 which may be captured or killed by the holder of a licence.

(6) The annual fees payable by the holders of the said licences shall be as follows :—

1. When issued to an officer or official of the British, Egyptian, or Sudan Government serving in Egypt or the Sudan, or subject to approval of the Governor-General to any person ordinarily resident in the Sudan, or intending ordinarily to reside there.

Licence A	£E. 5
Licence B	£E. 1

2. When issued to any other person.

Licence A	£E. 40
Licence B	£E. 5

Every holder of a Licence A obtained at the £E. 5 rate shall also pay to the Licensing Officer a fee of £E. 10 for every elephant killed by him under such licence.

(7) Every Licence A and Licence B shall (except in the case of the temporary Licence B, hereinafter mentioned) remain in force for one year from the date of issue, and shall then expire.

(8) The acceptance of a Licence A or Licence B shall be held to constitute an agreement by the holder thereof that he agrees to conform to the provisions of this Ordinance. And no licence shall be transferable. If an original licence be lost or destroyed, a duplicate licence may be obtained on proof of such loss or destruction and the payment to the Licensing Officer of a fee of P.T. 25.

(9) All huntsmen, beaters and other assistants

aiding the holder of a Licence A or a Licence B to hunt, capture or kill any animal or bird which such licence holder is authorized by his licence to hunt, capture or kill, shall be covered, while so acting, by such licence.

(10) Every holder of a Licence A or a Licence B shall keep an account of all animals and birds captured or killed by him, of any species included in Class 2 or Class 3, and of any other species mentioned in his licence. This account shall give date and place of capture or killing of each animal or bird captured or killed and the sex of each such animal. Every such licence holder shall produce such account together with his licence whenever called upon to do so by any Official of the Sudan Government and shall deliver a copy of such account signed by himself to the Licensing Officer upon the expiration of his licence or upon his leaving the Sudan, whichever first happens, as also, if required by the Licensing Officer for the purpose of compiling the annual returns, upon such other day as may be specified in the licence.

(11) At any time while a Licence B continues in force it may with the leave of the Licensing Officer be exchanged for a Licence A on payment of the difference between the fees chargeable for such licences respectively, but the substituted licence shall expire upon the day when the original licence would have expired.

(12) A temporary Licence B may be also granted at the discretion of the Licensing Officer for one or more days at a daily charge of P.T. 25.

(13) Any person killing, injuring or capturing any wild animal or bird in contravention of sub-sections (2) or (3) or (4) of this section, or refusing to produce his licence or such account as aforesaid when called upon to do so, or producing an incorrect account, shall be liable to a fine not exceeding £E. 100 or to imprisonment for a term not exceeding three months.

EXCEPTIONS.

7. Notwithstanding anything in this Ordinance contained, the owner or occupier of any cultivated land or any person authorized by him may capture, injure or kill any wild animals or birds causing serious damage to his property if such damage cannot otherwise be averted; and notwithstanding anything in this Ordinance contained, no person shall be deemed to have committed an offence under this Ordinance by reason of his having killed or injured any animal in defence of himself or any other person.

CLASS IV.

8. Any person may hunt, capture and kill any of the birds and animals included in Class IV.

RIGHTS OF NATIVES OF THE SUDAN.

9. (1) Licences for the hunting, capturing and killing of a specified number of animals and birds included in Class 1 may be issued in special cases to natives of the Sudan only. Each such licence shall be issued only with the approval of the

Governor-General, and shall be known as Licence C. The fee payable in respect of a Licence C shall be decided by the Mudir of the Province in which it is issued.

(2) No native of the Sudan not being a holder of a Licence C shall hunt, kill or capture any animal or bird included in Class 1.

(3) No native of the Sudan shall employ any firearm in the pursuit of any animal or bird included in Class 1 or Class 2 or Class 3, whether such native shall be the holder of a Licence C or not.

(4) Subject to the above restrictions, any native of the Sudan may hunt, capture and kill any wild animal or bird.

(5) Any native of the Sudan acting in contravention of sub-section 2 or 3 of this section shall be liable to a fine not exceeding £E. 10 or to imprisonment for a period not exceeding three months.

(6) Any native of the Sudan who is found in possession of any animal or bird included in Class 1, living or dead, or of any part of such animal or bird, shall be deemed to have killed or captured such animal or bird, unless the contrary be shown

SALE OF HIDES, HORNS, ETC., OF CERTAIN ANIMALS.

10. (1) The sale and purchase of the hides, horns or flesh, or of any trophies of any of the animals and birds included in the second schedule hereto is absolutely prohibited in the Sudan.

(2) No person shall expose or offer for sale or collect or keep for trade purposes any such hides, horns, flesh or other trophies.

(3) Any person acting in contravention of this section shall be liable to a fine not exceeding £E. 10 or to imprisonment for a period not exceeding three months, and all such hides, horns and trophies so purchased or sold, or offered for sale or collected for trade purposes shall be liable to confiscation.

(4) Any person found in possession of any such hides, horns, flesh or trophies shall be deemed to have collected the same for trade purposes, unless the contrary be shown.

DUTIES ON HIDES PERMITTED TO BE SOLD.

11. (1) The sale and purchase of hides, horns, flesh and other trophies of wild animals and birds other than those mentioned in the second schedule hereto are permitted in the Sudan.

(2) The following *ad valorem* duties shall be paid in respect of any such hides, horns, flesh or other trophies brought into the principal town or village of any Mudiria or Mamuria for purposes of trade or exported from the Sudan :—

On elephant or hippopotamus hides, 20 per cent.

On all other hides or skins, and the flesh, horns or other trophies of any animal or bird comprised in this section, 10 per cent.

(3) All such hides, flesh, horns and trophies brought into any such town or village as afore-

said shall be deemed to be brought there for the purpose of trade, unless the contrary be shown.

(4) The said duty shall only be paid once in respect of each article, and every official receiving payment of such duty shall if required give to the person making such payment a pass which shall authorize him to take the article in respect of which duty has been paid into any other place without paying any further duty.

(5) The holder of a licence issued hereunder shall nevertheless not be liable for the said duties in respect of the export of hides, horns or other trophies obtained by him under his licence; and any traveller leaving the country will be permitted to take with him free of the said duties not more than five in number of such hides, horns or other trophies upon making a declaration, if demanded, that they are not so taken for trade purposes.

(6) This section shall not apply to elephants' tusks or ostrich feathers.

(7) Any person failing to pay or attempting to evade the duty imposed by this section on any hides, horns, flesh or other trophies shall be liable to a fine not exceeding three times the amount of the duty, and the said hides, horns, flesh and other trophies shall be liable to confiscation.

EXPORT TAX ON LIVING ANIMALS.

12. (1) From and after the date of this Ordinance, an export tax according to the scale set forth in the third schedule hereto shall be levied on each

living specimen of an animal or bird mentioned in the third schedule.

(2) The said export tax shall not be levied in respect of animals or birds exported by the holder of a licence issued hereunder in accordance with the terms of such licence.

(3) Any person failing to pay or attempting to evade the duty imposed by this section on any animal or bird shall be liable to a fine not exceeding three times the amount of the duty, and the said animal or bird shall be liable to confiscation.

SANCTUARY FOR GAME.

13. (1) From and after the date of this Ordin ance the district bounded on the north by a line drawn from Kaka to Famaka; on the east by the Blue Nile from Famaka to the Abyssinian Frontier, and then by the boundary with Abyssinia to the Baro river; on the south by the Baro river to its junction with the Sobat river, and then by the Sobat river to its junction with the White Nile; and on the west by the White Nile, shall be a sanctuary for game within which no person other than natives of the Sudan residing in the said sanctuary and Officers and Officials stationed in the same and having a special permit endorsed on their licence, shall hunt, capture or kill any wild animal or bird.

(2) From and after the date of this Ordinance the district bounded on the north by a line from Jebelein to Karkoj; on the east by the Blue Nile between Karkoj and Famaka; on the south by a line drawn from Famaka to Kaka; and on the west by

the White Nile between Kaka and Jebelein, shall be a reserve within which no person other than natives of the Sudan residing therein and persons having a special permit endorsed on their licences, shall hunt capture or kill any wild animal or bird. Such special permit shall be granted at the discretion of the Licensing Officer, and only to persons residing in the said district, to Officers and Officials of the Sudan Government and to Officers and Officials of the British and Egyptian Governments serving in the Sudan.

(3) The said boundary lines between Jebelein and Karkoj and between Kaka and Famaka shall be hereafter more particularly defined by a notice issued in the *Sudan Gazette*.

(4) Any person acting in contravention of this section shall be liable to a fine not exceeding £E. 100, or to imprisonment for a term not exceeding three months.

LOCAL EXTENT OF LICENCES.

14. Subject to the provisions of the last preceding section, every Licence A or Licence B shall be valid throughout the Sudan, save that no licence shall be valid in any part of the Sudan to which under any Ordinance or Regulations for the time being in force it is unlawful for the licence-holder to proceed, and that no licence shall be valid in any part of the Sudan to which special permission is required unless endorsed to that effect by the authority by whom such permission is granted.

OSTRICH EGGS NOT TO BE REMOVED.

15. (1) No person, whether he is the holder of a licence or not, shall remove or disturb or injure the eggs of an ostrich or of any other bird which may from time to time be notified, without the written permission of a Licensing Officer.

SHOOTING FROM A STEAMER FORBIDDEN.

(2) No person shall shoot from a steamer either at rest or in motion at any bird or at any animal except the lion, leopard and crocodile.

POISON AND EXPLOSIVES NOT TO BE USED ON FISH.

(3) No person shall use any poison or dynamite or any other explosive for the taking of any fish.

PENALTIES.

(4) Any person acting in contravention of this section shall be liable to a fine not exceeding £E. 5 or in default of payment to imprisonment for a term not exceeding one month.

SPECIAL LICENCES FOR SCIENTIFIC PURPOSES.

16. (1) The Governor-General or any Officer authorised by him may by special endorsement on a licence permit the capture of a stated number of animals and birds included in Class 1.

(2) The Governor-General may dispense from the observance of such sections of this Ordinance

as he thinks proper (except sub-section 1 of section 13) any person who requires such dispensation for the purpose of scientific study.

(3) Any permission or dispensation given hereunder may be withdrawn at any time.

CONFISCATION OF COW AND SMALL IVORY.

17. All cow ivory and elephant tusks weighing less than 10 lbs. or such other weight as may be notified from time to time are liable to be confiscated and may be seized by any Magistrate, Police Officer or Officer engaged in the Civil Administration without adjudication of confiscation, subject to a right of appeal to the Mudir or to a Magistrate of the first or second Class against the confiscation.

POWERS OF GOVERNOR-GENERAL.

18. (1) The Governor-General may from time to time by notice published in the *Sudan Gazette* exercise all or any of the following powers (that is to say) :—

(*a*) Notify or prescribe any matter which is left by this Ordinance to be notified or prescribed.

(*b*) Declare a close time or close times during which any wild animal or bird specified in such notice shall not be hunted, captured or killed, nor the flesh thereof sold or offered for sale.

(*c*) Forbid or restrict the use of nets, pitfalls or other destructive modes of capture.

(*d*) Extend or limit any of the provisions of this Ordinance so as to include therein or exclude therefrom any wild animal or bird specified in such notice.

(*e*) Revoke, alter or suspend any such notices.

(2) Governors of Provinces may by public notice forbid or restrict the use within their respective provinces of nets, pitfalls or other destructive modes of capture, and revoke, alter or suspend any such notice.

(3) Upon the publication of any such notice this Ordinance and such notice shall take effect as if the matter contained in such notice had been incorporated in this Ordinance.

FEES PAYABLE BY PERSONS CONTRAVENING.

19. Persons contravening this Ordinance by hunting, capturing or killing any wild animal or bird included in Class 2 or Class 3 without a licence or with an insufficient licence, shall be liable for all the fees which would have been payable by them for the taking out of a sufficient licence for the hunting, capturing or killing of such animal or bird, in addition to any fine or imprisonment which may be awarded for such contravention.

COURT FOR TRYING CONTRAVENTION.

20. Prosecutions for a contravention of any of the provisions of this Ordinance may be tried by the Court of a Magistrate of the second Class or by any higher Court.

FORFEITURE OF LICENCES.

21. The licence of any person convicted of any offence under this Ordinance shall be liable to be forfeited.

CONFISCATION OF TROPHIES, ETC.

22. All animals, birds, skins, horns, tusks, feathers, trophies, eggs and carcases of all animals or birds captured or killed in contravention of this Ordinance shall be liable to confiscation, and may be seized by any Magistrate, Police Officer or the Licensing Officer, subject to a right of appeal to the Mudir against the confiscation.

THE FIRST SCHEDULE.

PART I.

CLASS 1. Animals and birds which may not be hunted, captured or killed :—

Giraffe.	Ostrich.
Rhinoceros.	Shoe-bill (*Balaeniceps*).
Wild Ass.	Ground Horn Bill (*Bucorax*).
Zebra.	Secretary Bird (*Serpentarius*).

PART II.

CLASS 2. Animals and birds, a limited number of which may be captured or killed by the holder of an A Licence, and the number authorised of any one species :—

Mrs. Gray's Water Buck (*Cobus Maria*)	1	Bush Buck (*Tragelaphus*)	4
Elephant	2	Reed Buck (*Cervicapra*)	4
Eland (*Taurotragus*)	2	Jackson's Hartebeest (*Bubalis Jacksoni*)	4
Kudu (*Strepsiceros*)	2	Tora Hartebeest (*Bubalis Tora*)	4
*Hippopotamus	4	Oryx Leucoryx	6
Buffalo	4	Addax	6
Roan Antelope (*Hippotragus*)	4	White-eared Cob (*Cobus Leucotis*)	6
Oryx Beisa	4	Addra Gazelle (*Gazella Ruficollis*)	6
Water Buck (*Cobus Defassa*)	4		

* There is no limit of the number of hippopotamus which may be captured or killed South of Fashoda.

PART III.

CLASS 3. Animals and birds, a limited number of which may be captured or killed by the holder of an A or B Licence, and the number authorised of any species.

Ibex	4	Ibis	2
Wild Sheep	4	Crowned Crane	6
Pelicans	2	*Wart Hog	12
Egrets	2	*Large Bustard	12
Herons	2	*Tiang	12
Storks	2	*Other Antelopes and Gazelles not before specified in this schedule (each species)	12
Marabout	2		
Spoonbills	2		
Flamingoes	2		

* A Licence-holder on a trip of more than three months' duration may shoot four more of each of these for food in every additional month.

THE SECOND SCHEDULE.

Animals and birds in respect of which the sale or purchase of the hides, horns or flesh or other trophies is prohibited :—

Animals and birds included in Class 1.	Hartebeest.
Mrs. Gray's Water Buck.	White-eared Cob.
Kudu.	Water Buck.
Roan Antelope.	Oryx.
	Ibex.

THE THIRD SCHEDULE.

Export tax on living animals :—

EACH £E. 24.

Elephant.	Rhinoceros.	Giraffe.

EACH £E. 10.

Hippopotamus.	Hartebeest.
Buffalo.	Roan Antelope.
Wild Ass.	Oryx.
Zebra.	Addax.
Water Buck.	Kudu.
Mrs. Gray's Water Buck.	Eland.
White-eared Cob.	

EACH £E. 5.

Addra Gazelle.	Wild Sheep.
Ibex.	Balaeniceps.

EACH £E. 2.

Ostrich.	Secretary bird.

EACH £E 1.

Lion.	Leopard.	Cheetah.

DISTRICTS CLOSED TO TRAVELLERS.

With reference to the notice as to Passports and reporting for Europeans and foreigners published in the *Sudan Gazette* of the 1st August, 1903, No. 50, p. 99, His Excellency the Governor-General has been pleased to order as follows:—

(1) Europeans and foreigners not being traders, travelling for the purpose of pleasure or sport south of Khartoum or in Kordofan, who have a subsisting game licence, need not obtain a pass from the Secretary-General unless they enter the districts mentioned below.

(2) No European or foreign traveller is, until further order, permitted to enter the districts mentioned below, unless he obtains the Governor General's special permission through the office of the Secretary-General, Khartoum; and any traveller who obtains such special permission must regulate his movements in accordance with instructions, which will be given to him.

Owing to the local conditions of those districts, such special permission will be granted to persons

travelling for pleasure or sport under exceptional circumstances only.

THE DISTRICTS ABOVE REFERRED TO.

(*a*) The district South of the Sobat and Pibor, East of the Bahr-el-Zeraf, and North of Shambé.
(*b*) The country on the West Bank of the White Nile South of a line drawn from Fashoda to El Eddeiya.
(*c*) The Bahr-el-Ghazal Province.

No. 2.

CONVENTION FOR THE PRESERVATION OF WILD ANIMALS, BIRDS, AND FISH IN AFRICA.

Signed at London, May 19, 1900.

HER Majesty the Queen of the United Kingdom of Great Britain and Ireland, Empress of India ;

His Majesty the German Emperor, King of Prussia, in the Name of the German Empire ;

His Majesty the King of Spain, and in his name Her Majesty the Queen-Regent of the Kingdom ;

His Majesty the King-Sovereign of the Independant State of the Congo ;

The President of the French Republic ;

His Majesty the King of Italy ;

His Majesty the King of Portugal and the Algarves, etc. ;

Being desirous of saving from indiscriminate slaughter, and of insuring the preservation throughout their possessions in Africa of the various forms of animal life existing in a wild state which are either useful to man or are harmless, have resolved, on the invitation addressed to them by the Government of Her Majesty the Queen of the United Kingdom of Great Britain and Ireland, Empress of India, in accord with the Government of His Majesty the German Emperor, King of Prussia, to assemble with this object a Conference at London, and have named as their Plenipotentiaries, that is to say :

Her Majesty the Queen of the United Kingdom of Great Britain and Ireland, Empress of India, the Right Honourable Sir John Adrian Louis Hope, Earl of Hopetoun, Viscount Aithrie, Knight Grand Cross of the Most Distinguished Order of St. Michael and St. George, a peer of Parliament, a Member of Her Majesty's Most Honourable Privy Council, Lord Chamberlain of Her Majesty's Household, etc. ; Sir Clement Lloyd Hill, Director of the Affairs of Africa in her Ministry for Foreign Affairs, Knight Commander of the Most Distinguished Order of St. Michael and St. George, Companion of the Most Honourable Order of the Bath ; and Edwin Ray Lankester, Esquire, Director of the British Museum (Natural History) ;

His Majesty the German Emperor, King of Prussia, in the name of the German Empire, Gustaf, Baron von Lindenfels, his Consul-General for the United Kingdom of Great Britain and Ireland, Privy Councillor of Legation, Knight of the Order of the Red Eagle, of the second class, with oak leaves and star, etc. ; and Dr. Hermann von Wissmann, Governor "en disponibilité," Major *à la suite* of the Army, Knight of the Order of the Red Eagle, of the third class, with sword and crown, etc. ;

His Majesty the King of Spain, and in his name Her Majesty the Queen-Regent of the Kingdom, Don Pedro Jover y Tovar, his Chamberlain, First Secretary of his Embassy at London, Commander of the Order of Charles III., of the Order of Isabella the Catholic, etc ;

His Majesty the King-Sovereign of the Inde-

pendent State of the Congo, M. Alexander Félix Fuchs, President of the Court of Appeal of Boma, Knight of the Order of Leopold, Officer of the Royal Order of the Lion, etc. ;

The President of the French Republic, M. Léon Geoffray, Minister Plenipotentiary, Councillor of the Embassy of the French Republic at London, Officer of the National Order of the Legion of Honour, etc. ; and M. Louis Gustave Binger, Colonial Governor, "hors cadres," Director of the Affairs of Africa at the Ministry of the Colonies, Commander of the National Order of the Legion of Honour, etc. ;

His Majesty the King of Italy, François, Count Bottaro Costa, Councillor of his Embassy at London ;

His Majesty the King of Portugal and the Algarves, M. Jayme Batalha-Reis, his Consul-General at London ;

Who, furnished with full powers, which have been found in good and due form, have adopted the following provisions :—

ARTICLE I.

The zone within which the provisions of the present Convention shall apply is bounded as follows : On the North by the 20th parallel of north latitude, on the west by the Atlantic Ocean, on the east by the Red Sea and by the Indian Ocean, on the South by a line following the northern boundary of the German possessions in South-Western Africa, from its western extremity to its

junction with the river Zambesi, and thence running along the right bank of that river as far as the Indian Ocean.

ARTICLE II.

The High Contracting Powers declare that the most effective means of preserving the various forms of animal life existing in a wild state within the zone defined in Article I. are the following :—

1. Prohibition of the hunting and destruction of the animals mentioned in Schedule I. attached to the present Convention, and also of any other animals whose protection, whether owing to their usefulness or to their rarity and threatened extermination, may be considered necessary by each Local Government.

2. Prohibition of the hunting and destruction of young animals of the species mentioned in Schedule II. attached to the present Convention.

3. Prohibition of the hunting and destruction of females of the species mentioned in Schedule III. attached to the present Convention when accompanied by their young.

The prohibition, to a certain extent, of the destruction of any females, when they can be recognized as such, with the exception of those of the species mentioned in Schedule V. attached to the present Convention.

4. Prohibition of the hunting and destruction, except in limited numbers, of animals of the species mentioned in Schedule IV. attached to the present Convention.

5. Establishment, as far as it is possible, of reserves within which it shall be unlawful to hunt,

capture, or kill any bird or other wild animal except those which shall be specially exempted from protection by the local authorities.

By the term "reserves" are to be understood sufficiently large tracts of land which have all the qualifications necessary as regards food, water, and, if possible, salt, for preserving birds or other wild animals, and for affording them the necessary quiet during the breeding time.

6. Establishment of close seasons with a view to facilitate the rearing of young.

7. Prohibition of the hunting of wild animals by any persons except holders of licences issued by the Local Government, such licences to be revocable in case of any breach of the provisions of the present Convention.

8. Restriction of the use of nets and pitfalls for taking animals.

9. Prohibition of the use of dynamite or other explosives, and of poison, for the purpose of taking fish in rivers, streams, brooks, lakes, ponds, or lagoons.

10. Imposition of export duties on the hides and skins of giraffes, antelopes, zebras, rhinoceroses, and hippopotami, on rhinoceros and antelope horns, and on hippopotamus tusks.

11. Prohibition of hunting or killing young elephants, and, in order to insure the efficacy of this measure, establishment of severe penalties against the hunters, and the confiscation in every case by the Local Governments, of all elephant tusks weighing less than 5 kilogrammes.

The confiscation shall not be enforced when it

shall be duly proved that the possession of the tusks weighing less than 5 kilogrammes was anterior to the date of the coming into force of the present Convention. No such proof shall be accepted a year after that date.

12. Application of measures, such as the supervision of sick cattle, etc., for preventing the transmission of contagious diseases from domestic animals to wild animals.

13. Application of measures for effecting the sufficient reduction of the numbers of the animals of the species mentioned in Schedule V. attached to the present Convention.

14. Application of measures for insuring the protection of the eggs of ostriches.

15. Destruction of the eggs of crocodiles, of those of poisonous snakes, and of those of pythons.

ARTICLE III.

The Contracting Parties undertake to promulgate, within a year from the date on which the present Convention comes into force, unless they already exist, provisions applying in their respective possessions within the zone defined in Article I. the principles and measures laid down in Article II., and to communicate to one another, as soon as possible after issue, the text of such provisions, and, within eighteen months, information as to the areas which may be established as reserves.

It is, however, understood that the principles laid down in paragraphs 1, 2, 3, 5 and 9 of Article II. may be relaxed, either in order to permit

the collection of specimens for museums or zoological gardens, or for any other scientific purpose, or in cases where such relaxation is desirable for important administrative reasons, or necessitated by temporary difficulties in the administrative organization of certain territories.

ARTICLE IV.

The Contracting Parties undertake to apply, as far as possible, each in their respective possessions, measures for encouraging the domestication of zebras, of elephants, of ostriches, etc.

ARTICLE V.

The Contracting Parties reserve to themselves the right to introduce into the present Convention, by common accord, such modifications or improvements as experience may show to be useful.

ARTICLE VI.

The Powers having territories or possessions within the zone defined in Article I., who have not signed the present Convention, shall be permitted to accede to it. With this object, the Government of Her Britannic Majesty is charged to communicate the present Convention to them before the exchange of ratifications.

The accession of each Power shall be notified through the diplomatic channel to the Government of Her Britannic Majesty, and by that Government to all the signatory or acceding States.

Such accession shall of itself carry with it acceptance of all the obligations stipulated in the present Convention.

ARTICLE VII.

The Contracting Parties reserve to themselves the right to introduce, or to propose to the Legislatures of their self-governing Colonies, the necessary measures for carrying out the stipulations of the present Convention in their possessions and Colonies contiguous to the zone defined by Article I.

ARTICLE VIII.

The present Convention shall be ratified.

The ratifications shall be deposited in London as soon as possible, and shall remain deposited in the archives of the Government of Her Britannic Majesty.

As soon as all the ratifications shall have been produced, a Protocol of deposit shall be drawn up which shall be signed by the Representatives in London of the Powers who shall have ratified.

A certified copy of this Protocol shall be forwarded to each of the Powers interested.

ARTICLE IX.

The present Convention shall come into force one month after the date of the signature of the Protocol of deposit of the ratifications provided for in Article VIII.

ARTICLE X.

The present Convention shall remain in force for fifteen years, and in the event of none of the Contracting Parties having notified, twelve months before the expiration of the said period of fifteen years, its intention of terminating its operation, it shall continue to remain in force for a year, and so on from year to year.

In case one of the signatory or acceding Powers shall denounce the Convention, such denunciation shall only affect the Power in question.

In witness whereof the respective Plenipotentiaries have signed the present Convention, and have thereto affixed their seals.

Done at London, in septuplicate, one copy for each Party, the nineteenth day of the month of May, in the year of our Lord one thousand nine hundred.

HOPETOUN.
CLEMENT LI. HILL.
E. RAY LANKESTER.
G. v. LINDENFELS.
DR. VON WISSMANN.
PEDRO JOVER Y TOVAR.
F. FUCHS.
GEOFFRAY.
L. G. BINGER.
COSTA.
JAYME BATALHA-REIS.

No. 3.

THE FOLLOWING IS AN EXTRACT FROM A LETTER FROM MR. A. BLAYNEY PERCIVAL, THE GAME OFFICER IN BRITISH EAST AFRICA:

November, 1903.

re IVORY.

THERE is still a large proportion of old buried ivory amongst the export, and in old days, I am told by a trader, seven-eighths of the ivory was "dead" as he called it—meaning old stuff. You mention eland as being in imminent danger of being wiped out. In this protectorate they are in much greater numbers than anyone would believe, and are greatly increasing in numbers. Koodoo I agree, but rinderpest is to blame in this country and partly in others. In '97 I saw fifteen dead bulls and more than double that number of cows and calves in the Transvaal during three months' shooting—all from rinderpest. I know there are more in the East African Protectorates than is usually supposed. We are little troubled here by the native with a gun, and as long as big drives can be prevented I doubt if the bow and arrow will do very much harm. I can assure you that no one is allowed to shoot in the Reserve now under any circumstances.

During my recent tour I was pleased to find eland more numerous than ever on the Athi plains.

Buffalo are also "jumping." I would hardly have thought it possible for them to increase so rapidly.

A. BLAYNEY PERCIVAL.

No. 4.

EXTRACT FROM A LETTER FROM A CORRESPONDENT IN EAST AFRICA, dated September 16, 1903.

I AM writing to you as there are a few things about the game here that may interest you.

I believe you once passed through Taveta, and so will know what an extremely beautiful district it is, although at present the plains are badly burnt up, the earlier rains having been very slight.

There has been no resident district officer here since November last, and as a consequence, the game has suffered rather badly. The Wakamba are the chief offenders, and now that the drought has driven the game to the lower swamps, these poachers have concentrated there also.

A number of little bomas they had made close to the places where the animals drink, as well as several nests made in trees overhanging game-paths, have been found and destroyed.

Another cause for the diminishing as well as the extreme wildness of the game is the fact that certain Germans send their men into English territory to drive zebra to their traps.

Kongoni are plentiful, and there are a fair number of Grantii; a few ostriches wander about between Chala and the Serengeti, while there are quite a number of rhino. about. Coming back from the swamps I came across a herd of fourteen giraffes, most of them young ones, not having their marks yet, but only a brownish coat. In the same

district I came across many lion tracks, but in spite of sitting up two successive nights, I could not see one, much less get a shot.

Taveta itself is alive with birds of different colours, but a light gun is a necessity to get good skins.

On the whole this is a very good game district, but it does want preserving better.

I don't think it is generally known that Colobus are very plentiful in the Kitowoo forest, N.W. of Jipe.

No. 5.

AN EXTRACT FROM A LETTER FROM A CORRESPONDENT AT BARBERTON IN SOUTH AFRICA.

NEARLY half of this district is game reserve, and public opinion will not stand any more just here, and I think it is quite large enough. The white men have grumbled a good deal at being shut out from prospecting there. The following is the area of the eastern game reserves: Boundaries, north, Oliphant's river; east, the Portuguese frontier; south, the Crocodile river; west, the water-shed from Crocodile Poort Railway station to Logies kop, thence following North Sand river to junction with Savie river, thence following Savie river to where it touched the Selali Railway Extension, then Selali Railway Extension to Oliphant's river.

The penalty for killing any game within the

reserve is up to 100*l*., or in default, six months with or without hard labour, but outside the reserve the game laws are good and stringent. The same penalties are provided for killing any of the following kinds of game at any time and under any circumstances: elephant, hippo., buffalo, eland, giraffe, red hartebeest, Lichtenstein hartebeest, kudu, sassaby, rhinoceros, quagga, zebra, ostrich, roan antelope, sable antelope, blue wildebeest, black wildebeest, waterbuck, reedbuck.

Of course it is difficult to watch all the natives, but the constabulary have instructions to do all they can.

As far as I can make out we have in the game reserve here, one old rhino. (full of lead), one small herd of elephants, a fair stock of ostriches, five to nine giraffes, a nice stock of wildebeest, a great lot of impala, two or three nice lots of a dozen or so each of buffalo, a nice stock of Burchell's zebra, a nice stock of klipspringers, where there are kopjies, plenty of waterbuck, plenty of reedbuck, plenty of bushbuck, a nice stock of kudu, a few sassaby, a few roan antelope, sable antelope doubtful, eland doubtful if any left. I wonder if we could get a consignment from anywhere?

I cannot make out if the mountain zebra exists anywhere in South Africa. It is extinct here if it ever existed, though I saw one with a travelling show that came here.

The account of an adventure with a lion in one of the Transvaal game reserves, written by a game warden, may be of interest. The main incidents are vouched for by Sir Alfred Pease, the resident magistrate.

No. 6.

IN THE LION'S JAWS. *By H. Walbeeter, Ranger Transvaal Government Game Reserves.*

I HAVE been asked to write an account of an adventure which befell me recently, and which I am told was rather unique in its way; of course, when a man finds himself in the position which I am about to describe, much smaller detail is blurred, and one has afterwards but a confused recollection of such, but I have a vivid recollection of the main features of what happened, and will therefore set them down.

I am at present one of the Rangers of the Transvaal Government Game Reserves, and have lived in the low veld of the Eastern Transvaal, hunting, trading and farming for a good many years, and so have a good deal of experience of wild animals and their ways.

Towards the end of July I was sent by the warden on duty to the Oliphant's river with the double object of inquiring into the doings of certain hunting parties, who were reported to be acting in contravention of the game laws, and to endeavour to secure a lion, some natives having complained that some of these animals were hanging about their kraals nearer than was pleasant. However,

my luck was out, and my best horse died of horse sickness on the way up, delaying me over two weeks while waiting for another to be sent up. It being thus necessary to return, I headed for the Sabi river, where I expected to find the warden. On August 26, I had to do rather a long march on account of scarcity of water, consequently sundown found me riding along the native bank some three miles short of my destination Metzi Metz, accompanied by a large rough-haired dog (of no very special breed, but of tried courage) and carrying my ·400 express. My four natives and three donkeys were a few miles behind me.

It was already pretty dark, twilight being a matter of minutes in these latitudes, and the path which I followed led along the banks of a small dry river bed. I had reached a place where a patch of long grass grew beside the path, when my dog "Bull" ran forward barking, and I caught sight of some indistinct forms, which from their general appearance, I took to be reedbucks; the very last thing I was thinking of was lions, having been fruitlessly tramping the country in hopes of securing one for some time. I therefore whistled to the dog and the next moment was conscious of a lion close to me on the off side and preparing to spring. I had no time to lift my rifle, but simply snatched my horse round to the near side, and drove the spurs in: he gave a bound which no doubt caused the lion to partially miss his spring, as his claws slipped on the horse's quarters, and, though several ugly wounds were inflicted, he lost his hold. The

concussion and the subsequent violent spring of the horse caused me to lose my seat, and simultaneously I saw a second lion rushing up from the opposite direction. I absolutely fell into his jaws, and believe that he had me before I ever touched the ground. I imagine that these lions were after the horse in the first instance, there being no known man-eaters in the district, but finding me so easy a prey this gentleman decided to accept what Providence offered to him. The next thing I recollect was being dragged along the path on my back, my right arm and shoulder in the lion's mouth, my body and legs underneath his belly, while his fore paws kept trampling on me as he trotted along, lacerating the fronts of my thighs considerably and tearing my trousers into shreds.

I had, of course, dropped my rifle, which I was accustomed to carry in a bucket in mounted infantry fashion. All the time he was dragging me along the lion kept up a sort of growling purr something like a hungry cat does when she catches a bird or mouse, and is anticipating a welcome meal.

My spurs kept dragging and catching in the ground till at last the leather broke. I cannot say that my feelings at this time were at all in accord with those of Dr. Livingstone, who, in his book, if I am not mistaken, expresses his feelings as those of dreamy repose, with no sense of pain ; I, on the other hand, suffered extremely in that respect, while I hope I may never have again to undergo such agony of mind as I then experienced ; it seemed hard to die like that, and yet I could see no

part of a chance, not the slightest loophole of escape.

Suddenly, like a flash, I thought of my sheath-knife: I always carried it in my belt behind my right hip, and on most other occasions when I had a fall it had fallen out: was it still there? The lion holding me by the right shoulder, I was obliged to reach round and underneath me in order to get at it; it took a long time, as it must be remembered that I was being dragged and trotted on by my captor all the time, but at last I managed it. How I held on to that knife! It was only an ordinary 3-inch blade of soft steel, such as one buys cheap at any up-country store, but it meant all the world to me then. I now no longer thought of death or anything else; all my mind and energy were concentrated on not letting go my one last road of escape. After dragging me nearly 200 yards, the lion stopped under a big forked tree, with large roots; as he did so I felt for where I judged his heart to be, and struck him behind the shoulder—one, two—with the energy of despair, using, of course, my left hand. He dropped me at the first stab, but still stood above me growling, and I then struck him a third time in the throat with all the force of which I was capable, severing some large vein or artery, as the blood deluged me; on receiving this last stab, my adversary sprang away and stood facing me two or three yards off, still growling; I scrambled to my feet, and so we stood opposite to one another; I fully expected him to attack me again, and recalling what I had often read about

the effects of the human voice, I shouted at the pitch of my lungs all the most opprobrious epithets of which I was master. I fear much of what I said would be unprintable and quite unfit to "point a moral or adorn a tale," but I don't think under the circumstances that even the most pronounced advocate of the "*suaviter in modo*" could have expected me to be polite.

Perhaps the force and volume of my language helped what my good little knife had begun, but anyhow, after what seemed an age and may have been only a few seconds, the lion turned and was lost to sight in the darkness. I could hear his growls turning to moans, which got fainter and finally ceased, and to my inexpressible relief I felt that I had probably killed him. Before this, however, I had lost no time in getting up the friendly tree as expeditiously as my lacerated right shoulder would permit me, and was hardly safely ensconced out of danger, when the other lion, who had made a long and unsuccessful chase after my horse with "Bull" sticking close and barking all the time, returned to the spot where it had parted from its companion, immediately picked up my blood spoor, and came with a rush nearly to the foot of my tree. I now shouted to the dog to encourage him, and he went for the lion in great style, barking all round him, until the latter retreated and disappeared for a few minutes, at the end of which he returned and made an ugly charge at the dog, who cleverly avoided him, and nothing daunted returned to the attack, encouraged by my shouts.

Finding he could neither get rid of his diminutive antagonist nor yet get at me, Leo evidently thought he was giving himself a good deal of trouble for nothing, and so went off sulkily in the direction taken by his now dead companion.

I was by this time feeling very faint and stiff, and fearing I would swoon and fall from the tree, I fastened myself to the branches as well as I could with neckcloth and handkerchief. Presently I heard voices, which heralded the arrival of my boys; I promptly called to them, and with their assistance got down the tree; it took an immense time, I was suffering from a raging thirst and in great pain, and we had four miles nearly to go to camp. Roughly bandaging my shoulder we started off, carrying fire-brands in case the lion should return. Never shall I forget that walk; often I fancied I heard stealthy footfalls in the darkness, and it seemed in my weakness and pain as if we should never arrive. I put the distance down at 14 miles, thinking I was estimating it very moderately, and even now it seems difficult to realize that it was barely four. However, all things have an end, and we got to the huts at last about midnight I suppose. The boys ran off to get water, but owing to the usual pools being dry, it took a long time finding any, and I lay enduring untold agonies of thirst. When, at last, the grateful liquid did come, I simply could not stop drinking, and don't know why I did not do myself some serious injury. High fever set in before morning. The boys went out at sunrise and found my horse grazing quietly in the bush,

and not much the worse, my rifle (a new one) uninjured, and the dead lion, which proved to be an old male, with a grey-flecked mane, his long canines worn quite flat at the points. His stomach was quite empty, and he must have been ravenously hungry; the other I should say was a much younger animal, from what I saw of him; I suppose they had had a run of bad luck hunting.

After the boys had made a litter, and I had rested for a day, I was carried down to Komati Poort, and promptly forwarded to Barberton hospital, which I reached six days after the accident, and here excellent attention and comfort awaited me. At first my arm swelled up to a vast size, and had to be lanced several times, while I could sleep but little at nights, and was troubled with horrible nightmares and hallucinations. I am now, however—two months after—quite well again except for a stiff arm, which I trust will shortly be as good as ever, and render me service in a return campaign against "Felis Leo."

No. 7.

EXTRACT FROM SIR CHARLES ELIOT'S REPORTS OF THE BRITISH EAST AFRICA PROTECTORATE FOR THE YEARS 1902 AND 1903.

GAME REGULATIONS.

THESE Regulations, which have now been in force since 1900, are found to work fairly well. Great difficulty is experienced in inducing sportsmen to comply with the prescribed formalities, but the main object of preserving from destruction the enormous quantity and variety of game which inhabits this Protectorate has been attained. The herds of zebra and various kinds of antelope to be seen on the Athi plains and in the Rift valley are an extraordinary spectacle, and show no sign of diminishing in numbers. On a recent visit to Nakuru I saw *Gazella Thompsonii* and *Grantii* in such abundance that the colour of the whole plain was appreciably altered by them. The buffalo and eland, which were rare a few years ago in consequence of the ravages of the rinderpest, have considerably increased, and I think a strictly limited number might be shot. I have, however, placed among the animals which cannot be shot without special licence, the roan antelope, and propose to extend the same protection to the Greater Kudu, which, at any rate, near Baringo has suffered from the excessive attentions of sportsmen. I think, however, that in the near future we shall have to rely for the preservation of our fauna on game reserves in which

nothing at all can be shot rather than on prohibitions to shoot particular animals. By a fortunate law of distribution white settlers have not hitherto much frequented the districts where there is most game, but when they do, I do not think it will be found possible to make them observe the present schedules, the more so as many animals, though they cannot be described as exactly dangerous or noxious, do considerable damage in gardens and plantations. I do not, however, apprehend the extinction of any species. The greatest variety of forms, if not the largest herds, seem to be found near Baringo and between Voi and Taveta, neither of which localities are likely to attract Europeans.

Experiments in the domestication of zebras are being made on the River Morendat, near Naivasha. A herd of nearly a hundred was captured in December, and the animals are at present living in a large inclosure on the banks of the river. It is as yet too early to speak of the results of the experiment. Little doubt is entertained respecting the possibility of taming zebra, as the young are exceedingly docile—far more so, in fact, than an ordinary foal; but it is feared that the adults are weak in the withers compared with horses and mules, and may not prove serviceable for rough work. It remains to be seen if this defect cannot be remedied by crossing.

RETURNS OF GAME SHOT IN EAST AFRICA IN 1902, UNDER 18 SPORTSMEN'S LICENCES, 81 PUBLIC OFFICERS' LICENCES, AND 16 SETTLERS' LICENCES.

Game killed on 18 Sportsmen's Licences issued 1902.

Species.	Male.	Female.	Districts.
Elephant	1	..	Coast (Takaungu).
Rhinoceros	13	5	8, Baringo; 8, Athi; 1, Tana; 1, Seroni.
Hippopotamus	3	9	1, Athi river; 2, Naivasha; 1, Coast, 7, Baringo.
Buffalo	1	..	Tana.
Eland	2	1	2, Baringo; 1, Athi.
Hartebeest, Neuman's	10	2	Nakuru.
" Coke's	48	14	53, Athi; 1, Kenia; 3, Naivasha; 5, Makingu.
" Jackson's	9	1	Baringo.
Topi	14	2	9, Mau; 7, Tana.
Wildebeest	19	2	20, Athi; 1, Makindu.
Duiker	2	..	Athi-Makindu.
Dikdik	15	10	14, Baringo; 8, Kenia; 3, Seroni.
Oribi	2	..	Mau.
Steinbuck	10	6	5, Athi; 11, Baringo.
Klipspringer	3	..	Baringo.
Waterbuck	24	2	11, Athi; 14, Baringo; 1, Tana.
Reedbuck	6	1	Baringo.
" Chanler's	3	..	Baringo (Eburru).
Impalla	47	5	11, Athi; 24, Baringo.
Grant's gazelle	69	5	28, Athi; 43, Baringo; 3, Seroni.
Thomson's gazelle	57	2	32, Athi; 22, Baringo; 5, Seroni.
Oryx beisa	6	..	4, Baringo; 2, Tana.
Bushbuck	10	3	2, Athi; 11, Baringo.
Kudu, lesser	1	..	Tana.
Wart hog	9	3	5, Athi; 4, Baringo.
Zebra	15	4	13, Athi; 6 Baringo.
Lion	5	2	6, Athi; 1 Tana.
Cheetah	2	1	1, Athi; 2, Baringo.
Serval	7	1	1, Athi; 7, Baringo.
Various antelope	10	..	Near Lake Victoria.
	423	81	
Total	504		

Game killed on 81 Public Officers' Licences issued 1902.

Species.	Male.	Female.	Districts.
Elephant . . .	3	1	2, Navaisha; 1, Baringo; 1, Lumbwa.
Rhinoceros . .	15	1	12, Baringo; 1, Makindu; 3, Kenia.
Hippopotamus . .	22	8	24, Baringo; 3, Lake Victoria; 2, Lumbwa; 1, Kenia.
Eland . . .	3	1	3, Baringo; 1, Molo river.
Buffalo . . .	..	..	
Hartebeest, Neuman's	15	2	6, Nakuro; 3, Baringo; 8, near Lake Elmentita.
,, Coke's .	122	15	113, Athi; 20, Naivasha and Kenia; 1, Lumbwa; 3, Kisumu.
,, Jackson's	24	3	15, Mau; 12, Baringo.
Topi . . .	39	..	26, Jubaland; 4, Baringo; 7, Mau; 2, Kisumu.
Wildebeest . .	35	13	47, Athi; 1, Kenia.
Duiker . . .	20	3	7, Baringo; 8, Athi; 1, Makindu; 1, Coast; 2, Mau; 2, Kenia; 1, Jubaland.
Dikdik . . .	52	12	21, Baringo; 11, Kenia; 4, Coast; 1, Naivasha; 1, Jubaland.
Oribi . . .	59	5	19, Baringo; 16, Kenia; 21, Mau; 2, Lumbwa; 2, Kisumu; 2, Jubaland.
Steinbuck. . .	54	15	31, Athi; 36, Baringo; 2, Athi.
Klipspringer . .	11	2	Baringo.
Waterbuck . .	92	5	2, Jubaland; 18, Athi; 13, Kenia; 2, Lumbwa; 35, Baringo (Defassa); 6 Mau (Defassa); 2, Coast; 1, Makindu; 3, Naivasha; 14, Jubaland.
Reedbuck. . .	58	5	32, Baringo; 1, Makindu; 23, Mau; 2, Coast; 5, Kisumu.
,, Chanler's .	25	2	21, Baringo (Eburru); 1, Athi.
Impalla . . .	92	7	15, Athi; 60, Baringo; 5, Kenia; 3, Makindu; 9, Mau; 5, Naivasha; 2, Jubaland.

Species.	Male.	Female.	District.
Thomson's gazelle .	116	20	60, Athi; 54, Baringo; 3, Makindu; 6, Naivasha.
Grant's gazelle . .	129	25	78, Athi; 63, Baringo; 4, Makindu; 9, Naivasha.
Peter's gazelle . .	16	..	2, Coast; 1, Makindu; 13, Jubaland.
Waller's gazelle .	12	..	Jubaland.
Oryx beisa . .	8	1	5, Baringo; 4, Jubaland.
Callotis . . .	4	4	Makindu.
Bushbuck . . .	20	3	17, Baringo; 2, Athi; 1, Coast; 1, Jubaland; 2 Mau.
Hunter's antelope .	4	..	Jubaland.
Bongo . . .	1	1	Ravine.
Roan . . .	1	..	Baringo.
Zebra . . .	26	3	17, Baringo; 15, Athi; 3, Mau.
Wart hog . . .	38	5	13, Athi; 13, Baringo; 2, Kenia; 13, Jubaland; 2, Mau.
Pig	2	2	1, Baringo; 3, Athi.
Colobus monkey .	2	..	Mau.
Ostrich . . .	2	..	Athi; Kenia.
Jackal . . .	2	..	Baringo.
Greater Kudu . .	4	..	Baringo.
Thomasis cob . .	1	..	Lake Victoria.
Serval . . .	4	1	3, Baringo; 1, Athi; 1, Makindu.
Marabout . . .	12	..	Athi.
Cobus cob. . .	1	..	Kisumu.
Crocodile . . .	1	..	Baringo.
Cheetah . . .	1	..	Athi.
	1148	165	
Total .	1313		

Game killed on 16 Settlers' Licences issued 1902.

Species.	Number.	District.
Hippopotamus .	4	Lake Victoria ; Athi.
Hartebeest . .	64	2, Mau ; 9, Baringo ; 53, Athi.
Wildebeest . .	16	Athi.
Oribi . . .	20	2, Baringo ; 18, Mau.
Steinbuck . .	2	1, Baringo ; 1, Athi.
Waterbuck . .	7	2, Baringo ; 1, Mau ; 1, Athi.
Reedbuck . .	5	1, Baringo ; 2, Mau ; 2, Athi.
Thomson's gazelle .	56	8, Baringo ; 4, Mau ; 43, Athi ; 1, Naivasha.
Grant's gazelle .	51	5, Baringo ; 3, Mau ; 43, Athi.
Impalla , . .	10	1, Baringo ; 5, Athi and Doniosabuk
Bushbuck . .	1	Athi.
Wart hog . .	6	1, Baringo ; 1 Mau ; 4, Athi.
Various . . .	5	Athi and Doniosabuk.
Coke's Hartebeest .	52	Athi and Doniosabuk.
Total . .	299	

Totals	504 1313 299
Gross totals . . .	2116

(Signed) A. Blayney Percival,

Game Ranger.

No. 8.

EXTRACT FROM THE REPORT OF COL. HAYES SADLER FOR THE UGANDA PROTECTORATE FOR THE YEARS 1902 AND 1903.

PRESERVATION OF GAME.

The Game Regulations, which have now been in force for the last three years, have worked well, and no instance has been brought to notice during the year of any breach of the rules by sportsmen. In the tracts immediately under our control the provisions of the Regulations have been fairly well kept by the natives, but in the more distant parts, where we are unable to exercise supervision, I regret to say this has not always been the case.

The most direct result of the Regulations has been to afford partial immunity to the large herds of elephants in the Western province, which are now, consequently, said to be on the increase. These herds roam at different seasons of the year along the Western shore of Lake Albert, between Unyoro, Toro and Ankole, and these districts, with the Nile province, afford perhaps the best field in this part of Africa to the sportsman anxious to secure a large pair of tusks. But, whilst preserving the elephant, we have also to think of the people. Latterly, and as a practical result of protection, many complaints have been received of damage done to shambas and cultivation by elephants, plantations being destroyed, and, in several instances, habitations and villages being deserted. The matter has been taken up, and

temporary arrangements have been made, by allowing, under certain well-defined conditions, elephants actually found doing damage to plantations to be killed, whereby it is hoped cultivation will be preserved with least loss to the herds. At the same time, a few licences will be issued to the Chiefs, allowing them to shoot two elephants each under the Game Regulations on payment of the prescribed fee.

As regards game generally, it finds a natural protection in the long grass, which obscures it from view for the greater part of the year in many portions of the Protectorate. Except when the grass is burnt it is quite possible to march for many days and see little or no game, though it is well known to be in the neighbourhood.

I should like to add a word to the protest which I see has been made in another part of Africa to the inclusion of hippopotamus in the list of the partly protected animals. This mischievous beast has more of original sin in its nature than it is generally given credit for, and has but little to show in return. Not content with making nightly raids on all cultivation within its reach along the shores of our lakes and banks of our rivers, it indulges in wanton attacks on boats and canoes, and is a real source of danger to life at the ferry at Jinja and in the narrow passages of the Nile. Several instances have been reported of canoes being upset and men drowned. I am of opinion that it should be destroyed wherever it is found ; there is not the slighest fear of its extinction, but it should

be driven to seek its habitat away from the haunts of man, where it is a most decided nuisance.

Annexed to this report is a return of all the game shot in the Uganda Protectorate during the year 1902. Thirty public officers' licences, two sportsmen's licences, and one settler's licence were issued. There were no convictions for contravention of the Game Regulations.

RETURN OF GAME SHOT IN UGANDA IN 1902.

Species.	Male.	Female.	Principal Localities.
Thomson's gazelle	3	..	Naivasha.
Hartebeest . .	37	3	Nile province; Singo; Bugaya.
Cobus cob . .	82	..	Busibika; Butiaba.
Waterbuck . .	49	3	Nile province; Busibika.
Bushbuck . .	12	..	Nile province; Semliki.
Hippopotamus .	40	16	Nile province; Lake Victoria.
Lion . . .	1	2	Maanja river; Nile province.
Zebra . . .	11	..	Maanja river; Busibika; Kabula.
Reedbuck . .	36	1	Bwera.
Harness antelope.	8	..	Butiaba; Mitoma.
Oribi . . .	19	3	Nile province; Bwera; Gomba.
Crocodile . .	1	..	Nile.
Wart hog . .	3	1	Nile province.
Elephant . .	9	..	Nile province; Buyago; Bujuju; Buddu.
Duiker . .	2	..	Nile province.
Steinbuck . .	4	..	Nile province.
Topi . .	9	3	Bwera; Ankole.
Roan antelope .	4	..	Nile province.
Impala . .	7	..	Gomba.
Leopard . .	2	..	Busibika.
Buffalo . .	1	..	Nile province.
Oryx . . .	2	..	Baringo.
Greater koodoo .	1	..	Baringo.
Peter's gazelle .	4	..	Baringo.
Dikdik . .	2	..	Baringo.

No. 9.

EXTRACT FROM THE REPORT OF SIR ALFRED SHARPE, THE COMMISSIONER IN BRITISH CENTRAL AFRICA, 1901–2, AND MAJOR F. B. PEARCE FOR 1903.

GAME PRESERVATION.

New regulations for the preservation of game have been promulgated, which carry out the principles agreed upon at the International Game Conference held in London in 1900. Game does not appear to be on the decrease in the Protectorate, except, possibly, in the immediate vicinity of European settlements. In Angoniland there are still large numbers of elephants; in this district a few months ago I met with a herd containing over 100. In Angoniland the elephants do a considerable amount of damage every year to the native grain plantations. When on these garden-robbing expeditions they go in large bands, and the Angoni state that it is always the tuskless bulls and cows which first enter the plantations and do the scouting work, the main body of the herd following behind.

GAME.

The game in the Protectorate continues to increase. This is doubtless owing to the more stringent Regulations which have been issued, and also to the continued disarmament of natives.

The total number of elephants shot has been

nine. These animals, although confining themselves generally to the more outlying districts of the Protectorate, occasionally visit localities nearer to the centre of the European population, generally in transit to some favourite feeding ground, and it is no uncommon thing to hear of elephants within easy range of Zomba and Blantyre. Reports are occasionally received from the Collectors of Districts reporting damage to native food crops by herds of elephants.

Antelope have undoubtedly increased; and in various parts of the Protectorate there are very large herds of eland, which occasionally also do considerable damage by eating native crops.

Beasts of prey, such as lions and leopards, are numerous; owing to the character of the country, it is difficult to kill them in any number so as to diminish their natural increase. Game being plentiful, they confine their attentions chiefly to the antelope or to the domestic cattle in European settlements.

Constant complaints are being made by natives regarding the depredations of hippopotami, which since their stricter preservation, have likewise increased. As they enter the native grain gardens along the banks of the rivers by night, they in a very short time ruin a whole crop. It is exceedingly difficult, by barriers or otherwise, to prevent the entry of the beasts; and before the harvest of the grain it is necessary for the native owners to watch their fields throughout the night to prevent loss of their food supply.

Considerable damage is also done to the native crops by wild pigs and parties of baboons. These latter have become exceedingly audacious. Collectors are always authorized to loan to natives guns and a certain amount of powder and shot for the purpose of safeguarding their crops.

Crocodiles likewise continue to be numerous in the Upper and Lower Shiré river, but during the past twelve months there has been a decrease in the number of cases of natives being seized while near the bank.

The total number of head of game shot during the last year in the Protectorate is 2,052.

190 licences of all kinds were issued.

No. 10.

EXTRACT FROM LORD CROMER'S REPORT FOR EGYPT AND THE SUDAN FOR THE YEAR 1902.

PRESERVATION OF GAME.

A VERY full and interesting Report on this important subject has been received from Mr. Butler. I can here only attempt to give a very brief summary of its contents.

A large tract of country, approximately 300 miles long by from 100 to 150 miles broad, has been made into a game reserve. It is situated between the Blue and White Niles, the Sobat river and the Abyssinian frontier. In this tract only officers and officials of the Sudan Government and residents approved by the Governor-General are allowed to shoot. Mr. Butler thinks, and I fully agree with him, that, in addition to this reserve, a complete sanctuary for game should be formed as soon as sufficient knowledge has been obtained of the distribution and migration of animals.

Mr. Butler gives the following list of game killed under licences during the past year :—

Elephant	30
Rhinoceros	4
Buffalo	34
Jackson's hartebeest	34
Tora hartebeest	8
Tiang (*Damaliscus*)	83
Waterbuck	78
Mrs. Gray's waterbuck	16
White-eared cob	107
Uganda cob	6

Roan antelope	39
Oryx leucoryx	2
Kudu	1
Reedbuck	22
Bushbuck	31
Ariel	74
Other gazelles	139
Duiker	8
Oribi	43
Ibex	5
Hippopotamus	19
Wart hog	15
Wild boar	2
Lion	23
Leopard	7
Cheetah	2
Giraffe	4
Wild ass	2
Ostrich	4
	842

It cannot be doubted that a certain quantity of game is killed, under licence, without being reported. Mr. Butler, however, thinks that the above list probably represents about 80 per cent. of the larger animals shot by Europeans, but that, as regards gazelle and ariel, it cannot be held to represent more than 50 per cent., if so much.

The European sportsman is not, however, the principal enemy to game in the Sudan. The law, as it stands, is legally applicable to all natives of the Sudan alike. But it is quite clear, from what Mr. Butler says, that it cannot be fully enforced. "I have not attempted," Mr. Butler says, "to collect any statistics relating to game killed by natives owing the impossibility of obtaining anything approaching to accurate information. A great deal of destruction undoubtedly went on during the

year. The principal cause of destruction appears to be the profit derived from the sale of hides." Thus, the Moudir of Senaar reported that large organized hunting parties, well armed with rifles, come from the direction of Gedaref and the Abyssinian frontier into the country between the Rahad and Dinder rivers and slaughter game indiscriminately. Hunting parties also did much harm in portions of the Kassala district.

Mr. Butler makes several suggestions with a view to checking these evils. They will, without doubt, receive full consideration. But so long as the natives possess firearms—and it is difficult, if not impossible, to disarm them altogether—it is very questionable whether the illicit destruction of game in the Soudan can be entirely stopped.

Mr. Butler, the Head of the Game Preservation Department, writes: "The necessity for Game Laws seems to be now generally recognised, and in most cases the limits have been loyally observed. There have been cases of unsportsmanlike conduct among visitors and officials, but they have been few in number. . . . That game in the Sudan must, with the advance of civilization, largely decrease is, I think, inevitable; but in many parts of the country I am hopeful that it will, if in somewhat reduced quantities, be able to hold its own."

According to the returns furnished by the holders of game licences, the total number of animals killed during the year ending on October 31, 1902, was 1,340, as against 842 during the

previous year. It is believed that these figures represent about 90 per cent. of the game killed by European sportsmen. Mr. Butler adds: "A large quantity of game was again doubtless killed by natives during the year, but perhaps less than in 1900–1901. The Mudir of Senaar has done a good deal to break up the organised hide-hunting gangs on the Rahad and the Dinder. I have taken credit in the Budget of next year for two patrols of six men under his control, to keep these rivers free from poachers during the dry season; and I think this destruction of game for hides will, in the future, be considerably reduced."

As some complaints have been made with regard to the number of animals killed by officers stationed in the Sudan, it may be desirable that I should state the facts connected with this subject. Of the 1,340 animals mentioned above, 953 were killed by officers, and 387 by visitors. The number in the former category does not seem disproportionate when it is remembered that at least three times as many licences were taken out by officers as by visitors, and also that a large number of the various descriptions of antelope were killed for food, under perfectly justifiable circumstances, by expeditions sent by the Sudan Government to remote parts of the country.*

* Amongst the animals specially protected there were killed during the past season one rhinoceros, one giraffe, and one wild ass. The rhinoceros was killed by an officer in self-defence. The giraffe was shot by Prince Henry of Lichtenstein at the request of the British Museum. The wild ass was killed for purposes of food by the Survey officer.

A high authority on matters of sport, Mr. E. N. Buxton, has recently written a work entitled "Two African Trips," in which he criticises the system adopted, under which a large extent of country is treated as a partial sanctuary; that is to say, officers are allowed to shoot in it, but visitors are prohibited from doing so. In dealing with this subject, it must be remembered that the visitor comes to the Sudan for purposes of travel and recreation during the least trying season of the year. The officers, on the other hand, have, for the most part, to live a very hard and solitary life in a most trying climate during the greater portion of the year. In my opinion, it is perfectly justifiable, in part return for the excellent and very arduous services rendered by the British officials, civil and military, in the Sudan, to allow them certain privileges in the matter of sport. The district reserved for officers, however, was, perhaps, somewhat excessive. Mr. Butler writes: "The west bank of the White Nile has been heavily shot over this year, and the number of water-buck in particular has been reduced. It will be an advantage when a greater selection of routes can be offered to shooting parties, which will result in the killing of game being more generally distributed and less localized." Mr. Butler, therefore, has recommended that, until a wider field can be provided for visitors, no district should be specially reserved for officers, but that a smaller tract of country should be treated as a complete sanctuary, where no one, whether officer or visitor, should be allowed to shoot. This

recommendation will be adopted. I may add that, so far as I could judge from personal observation, a very large tract of country, lying between the entrance of the Bahr-el-Gebel and Bahr-el-Zeraf on the north to about Gondokoro on the south, already constitutes a far more effectual sanctuary for game than any which could be treated by law. A large portion of this country is destitute of population, and for the time being at all events, is practically impenetrable to the European sportsman.

Mr. Butler writes: "I am inclined in future to afford less protection to hippopotami. They are extremely destructive to cultivation, and where cultivation exists they must go. In the Bahr-el-Ghazal they are a danger to small boats, and sometimes cause accidents to the rudders and paddle-wheels of steamers. In the swamp regions they are found in enormous numbers, and are in no danger whatever of extermination."

So far as I could gather from personal inquiry during my recent tour in the Sudan, I should say that Mr. Butler was quite right. I can bear ocular testimony to the fact that hippopotami abound in the White Nile. There is equally little doubt that in places they do much harm. It is quite possible to push too far the preservation of destructive game animals. Colonel Sparkes, in his report on the Bahr-el-Ghazal province, writes: "I suggest that, west of Lake No, hippopotami be treated as vermin and shot on sight. In the narrow rivers of the Bahr-el-Ghazal they swarm and are a positive pest, damaging the crops near rivers, and constantly

making unprovoked attacks on small boats, dugouts, etc. Quite recently a Berthon boat, carrying the mail for the north, was attacked and sunk, the mail and two rifles lost, the two men in the boat narrowly escaping."

Mr. Buxton, if I understand rightly, also advocates that Darfour, Kardofan, and the region about the Sobat—districts which are at present closed—should be thrown open to sportsmen. I agree with Sir Reginald Wingate, whose opinion is generally shared by the most competent authorities in the Sudan, that, for the present, this would not be at all desirable. The attack made by the Agar Dinkas on Lieutenant Scott-Barbour's party last year, which resulted in the death of that officer, and the despatch of a small punitive expedition, is of itself sufficient to show the necessity for caution in dealing with this subject.

No. 11.

EXTRACT FROM LORD CROMER'S REPORT FOR EGYPT AND THE SUDAN FOR THE YEAR 1903.

PRESERVATION OF GAME.

THE Sudan Game Ordinance, issued in 1901, was necessarily of a tentative character. A short experience was sufficient to show that it required considerable modifications. In the course of last year the subject was carefully reconsidered. In the process of recasting the law the suggestions made by Mr. E. N. Buxton, and other gentlemen specially qualified to speak on this subject, proved of the greatest utility. The new law is based on the principle, which appears to meet with general approval, that somewhat exceptionally favourable treatment should be accorded to officials permanently resident in the Sudan. For the reasons given in my last Annual Report ("Egypt, No. 1 of 1903," p. 81), I think that this principle is just and politic.

A sanctuary has been formed, which will be so far absolute that no one will be allowed to shoot in it, save officials actually stationed within its limits.

A second, and less absolute sanctuary has been formed, in which only Sudan officials will be allowed to shoot.

The geographical limits of these two sanctuaries are given in Article 13 of the Ordinance published in the "Sudan Gazette" for December 1903.

Outside these two reserves all sportsmen will be allowed to shoot, save where restrictions are imposed for reasons other than those based on the desirability of preserving game.

The official returns show that 1072 head of game were shot during the year ending the 30th September, 1903. Of these, 175 were shot by visitors, and the remainder by Sudan officials. The detail is given in Inclosure 1 to this dispatch. Mr. Butler, who directs this Department, thinks that, except as regards ariel and gazelle, the official return represents about 90 per cent. of the game killed. He estimates that, in addition to these, about 200 ariel and 300 gazelle were killed.

The following remarks, which I quote from Mr. Butler's Report, are of interest :—

"The present condition and the outlook for the near future of the game appears to me very satisfactory. But time will, I fear, bring about a change in the state of the country which, however desirable in other respects, must gradually, but surely, drive the game from many districts. There are, however, large areas in the Sudan which are not likely ever to become thickly populated, and where the continued existence of game in abundance can be assured by adequate protection. In such districts there is no reason why large game should not continue to exist for centuries ; but from others, as the country becomes repopulated, and chains of prosperous villages spread along the river banks—the favourite haunts of the game—it is bound in time to disappear. I believe that this must come about,

sooner or later, with the increase of prosperity and civilization under settled government.

"One of the principal causes of the abundance of African game in the past has been the existence of powerful warrior tribes, which laid waste great tracts of surrounding country for decades together. In these devastated areas, the game increased until its numbers were as great as the soil could support. The barbaric power, that makes a solitude and calls it peace, is the best game preserver. Legislation can protect game from the rifle, but is powerless to save it from giving way to civilization. The *Pax Britannica* can never do for African game in the future what the Zulu impis, the Masai Moran, the slave-raiders, and the Dervishes have done in the past.

"The River Dinder is a local example of what I mean. Travelling up it this year, between Duraba and the Abyssinian frontier, I saw, with the exception of two old blacks who were trying to find their way from the Blue Nile to Kassala, not a single human being. Yet my guides kept constantly talking of villages which had stood there twenty years ago, and of which not a trace remained. The country was full of game. I should think it very unlikely that there was anything like the same quantity previous to the depopulation which went on under Dervish rule."

No. 12.

EXTRACT FROM THE REPORT OF H. E. S. CORDEAUX, COMMISSIONER FOR THE SOMALILAND PROTECTORATE, 1901 and 1902.

LIST OF ANIMALS KILLED UNDER SOMALILAND GAME LICENCES DURING THE YEAR ENDED DECEMBER 31, 1901.

Under Sportsmen's Licences.

Nil.

Under Public Officers' Licences.

Kudu, greater	10
„ lesser	2
Gazelles	28
„ Waller's	3
„ Soemmering's	6
Wart hog	13
Dikdik	3
Antelope	2
Klipspringer	2
Elephant	1
Oryx	6
Aul	10
Monkey, long-haired	1
Gerunuk	8
Hartebeest, Swaynei	1
Pelzeln's gazelle	3
Lions	8
Hyena, striped	1
Wild cat	2

Under Settlers' Licences.

Nil.

I have, etc.

(For His Britannic Majesty's Commissioner and Consul-General, Somaliland Protectorate, Berbera)

(Signed) H. E. S. CORDEAUX.

LIST OF ANIMALS KILLED UNDER SOMALILAND GAME LICENCES DURING THE YEAR ENDED DECEMBER 31, 1902.

Under Sportsmen's Licences.

Nil.

Under Public Officers' Licences.

Antelopes and gazelles (Class A). .	—
Oryx	3
Strepsiceros (Kudu)	3
Strepsiceros Imberbis.	2
Aard-wolf	1
Smaller monkey	1
Antelopes and gazelles (Class B) .	19
Wild pig	3

I have, etc.

(Signed) H. E. S. CORDEAUX,

His Britannic Majesty's Acting Commissioner and Consul-General.

BERBERA, *January 15, 1903.*

No. 13.

GAME CENSUS OF THE BRITISH CENTRAL AFRICA PROTECTORATE.

THE Society of Arts have been favoured with permission from the Secretary of State for Foreign Affairs, to publish the following game census—which is covered by the letter to Sir Clement Hill, K.C.M.G., C.B., Superintendent of African Protectorates—from Sir Alfred Sharpe, K.C.M.G., C.B.

DEAR SIR CLEMENT,—Before I left British Central Africa for England on leave last year, I requested all the collectors of the Protectorate to fill in forms for the obtaining of something in the way of a "Game Census." This has been done, and I now forward it to you. While, of course, many of the items entered are extremely uncertain, the general proportions in which game of different descriptions is present in various districts are fairly reliable. I should put the number of elephants at more like 1500 than 600.

Yours sincerely,

ALFRED SHARPE.

THE RESIDENCY, ZOMBA,
BRITISH CENTRAL AFRICA,
January 25, 1904.

British Central Africa Protectorate Game Census, Prepared from Statistics supplied by District Collectors.

Species.	Total.	Species.	Total.
Elephant	605	Bush pig	9,930
Rhinoceros	124	Hartebeest	14,400
Gnu Wildbeest	168	Impala	5,175
Hippopotamus	2,687	Reedbuck	21,720
Zebra	3,665	Duiker	15,640
Sable	3,065	Klipspringer	2,315
Roan	1,600	Steinbuck	430
Kudu	2,280	Waterbuck	17,200
Colobi or other fur monkeys	7,200	Bushbuck	10,580
Aard Varks	50	Puku	800
Serval	3,300	Leche Waterbuck	—
Cheetah	—	Inyala	20
Smaller monkeys	15,300	Lion	543
Marabous	2,910	Leopard	1,751
Egret	3,200	Hyena	3,850
Antelopes	2,760	Wild dog	530
Chevrotains	—	Porcupine	300
Wild pig	9,300	Buffalo	740
Smaller cats	4,760	Eland	7,760
Jackal	4,600	Fox	1,000
Warthog	7,080	Kadumba	2,500

LONDON: EDWARD STANFORD, 12, 13, AND 14, LONG ACRE, W.C.

A MAP OF PART OF EAST AFRICA SHEWING THE GAME RESERVES AND CLOSED DISTRICTS IN THE SOUDAN 1904

Scale of English Miles
100 80 60 40 20 0 100 200

Game Reserves

OFFICERS RESERVE
SANCTUARY
TORO RESERVE
BUDONGA FOREST RESERVE
SUGOLAND RESERVE
JUBALAND RESERVE
MARSO RESERVE
HARGEISA RESERVE
LAKE SHIRWA RESERVE
ELEPHANT MARSH RESERVE

EAST AFRICA PROTECTORATE
GERMAN EAST AFRICA
FREE STATE
CONGO
ABYSSINIA
GULF OF ADEN
INDIAN OCEAN
SOMALI
NOGAL or white stony country
DAR FUR
KORDOFAN
DAR FERTIT
DAR BANDA
DAR ABU DALI
DAR ABU DIMA
DAR TOKONAWI
ZAGHAWA
WANYANGA
BATWA
MANEMA
MAKUA
MAKUA LAND
MOZAMBIQUE
ARCHIPELAGO DAHLAC
Farsan Archipelago
Kamar Bay
Ras Fartak
Mahrah
Socotra
Island of Meroe
Nubian Desert
Libyan Desert
Arabian Desert
Red Sea
Gulf of Aden
Strait of Bab-el-Mandeb
Equator
North Latitude
South Latitude
Longitude East of Greenwich

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OF

THE SOCIETY FOR THE PRESERVATION

OF THE

WILD FAUNA OF THE EMPIRE

Volume II.

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THE SOCIETY FOR THE PRESERVATION

OF THE

WILD FAUNA OF THE EMPIRE

ORIGIN AND OBJECTS OF THE SOCIETY

The destruction of wild animals throughout the British Empire, more especially in Africa, had become so appalling that in 1903 a small Association was formed for the purpose of collecting information as to the number of wild animals killed each year, the gradual disappearance of species, &c., and to take steps so far as possible to check this destruction. The objects of the Association are to create a sound public opinion on the subject at home and in our Dependencies, further the formation of game reserves and sanctuaries, the selection of the most suitable places for these sanctuaries, and the enforcing of suitable game laws and regulations.

The principal officials in charge of the various sections of British Africa are impressed with the importance of immediate steps being taken for the preservation of African game, and have, without exception, consented to become Vice-Presidents or Honorary Members of the Society.

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Rhys Williams, *Hon. Secretary*,
2 Temple Gardens, E.C.

THE YEAR.

The year which has elapsed since the publication of our first number has been characterised by some developments of interest to our members.

A considerable accession to the membership of our Society has taken place. There are now seventy ordinary members and thirty honorary members. We invite all these to bring in further recruits, who will help us to promulgate the principles of the Society, which may be summarised in the words of our motto, 'Live and Let Live,' by which we mean that while it is perfectly legitimate to take toll of wild animals, yet the fauna of the Empire and especially the larger game which experience shows to be in danger of extermination, is something to be cherished and safeguarded, not wantonly squandered.

Among our new members it is satisfactory to find a number of the ablest and most long-sighted of the administrators in our Colonies and Dependencies. The growth of a strong public opinion favourable to our views among those responsible on the spot for the administration of the Empire is regarded by us as a most favourable symptom. Chief among them we are proud to include Lord Cromer, Lord Minto, Lord Milner, Earl Grey, and Lord Curzon, who are among our Vice-Presidents, and Sir Alfred Sharpe, Sir Frederick Lugard, Sir Godfrey Lagden, Sir William Milton, and Sir Arthur Lawley, thus covering a very large proportion of our Empire beyond the Seas. The Colonial Secretary has also joined us, and this has an especial significance at the present time owing to the transference to the Colonial Office of British East Africa, Uganda, and British Central Africa, and to the rapid developments of and railway extension in Northern Rhodesia.

In this connection we may refer to the deputation of our Society which waited upon Earl Grey, at that time Vice-Chairman of the British South Africa Company, together with Mr. R. T. Coryndon, the Commissioner of N.W. Rhodesia, who was then in England. The interview had especial reference to a rumoured permission to the contractor of the new railway to the Victoria Falls and beyond to kill game for the feeding of his workmen, as to which we feared, rightly or wrongly, lest the previous destruction which has notoriously followed such an arrangement would be repeated. We have been recently informed, on authority, that the native labourers employed on the railway are particularly well looked after, and that no game is shot for the use of the men on the construction work.

Incidentally, advantage was taken of this interview to discuss other measures of protection. Mr. Coryndon has since sent us, among others, the important Proclamation by his Excellency the High Commissioner dealing with the game regulations in Barotzi Land. Under this Ordinance the administrator will have power to protect absolutely certain species or classes of game within certain areas, and to endorse any conditions on a licence, to declare any tract of land to be a Game Reserve, to forbid the sale of game, to put a heavy duty on exportation of trophies, together with other useful provisions. Certain Reserves have been established in this important territory, which is the only remaining area in South Africa where the larger game can be described as being still abundant and varied. It is much to be hoped that these Reserves are adequate to cover the migrations. The correspondence with the British South Africa Company which followed is published in this volume on page 68.

An influential deputation has also waited on the Right Hon. Alfred Lyttelton as Colonial Secretary. For the reason already given—the fact that vast territories are coming for the first time under the protection of the Colonial Office—we naturally attach the greatest importance to the favourable view expressed by him, and we have, therefore, printed in this number a full report of that interview.

We make it our business to search the official reports from the various Protectorates for references to the subject of the preservation of the fauna, and it is satisfactory to note a growing sense of the importance of this asset of the Empire as an element of attraction to would-be colonists. Several extracts from these reports are printed in this number.

Hitherto our attention has been chiefly drawn to our possessions on the East Coast of Africa. It is to be hoped that the same attention will shortly be drawn to the subject in our Nigerian Protectorates, if that is not already the case. We have searched in vain for any reference to the subject in the report dated November 1904.

The sudden and rapid influx of settlers in British East Africa has raised questions which in some cases have been dealt with in a way not entirely satisfactory from our point of view. It must be remembered that this territory contains the most varied fauna surviving in any part of the Empire. The well-devised Reserve which extends from the Tsavo River to the Rift Valley has been our main reliance for the permanent conservation of species in that Protectorate. To our great regret we understand that considerable grants of land have been made to settlers within this Reserve. This not only gravely compromises its sanctity and adds to the difficulty of safeguarding the remainder, but would seem to have been needless in view of the large area of elevated upland, suitable for occupation by white men, which remains vacant.

It will be seen that, while the reception of the deputation was sympathetic, the 'eternal want of pence' stands in the way of what

we think necessary measures. To this plea we point out that the nation has spent approximately six million pounds on the Uganda Railway. Those who expect a commercial return on this are probably sanguine. The money was spent, and rightly spent, for Imperial reasons, such as the protection of the Nile water-way and the abolition of slavery. For these objects the nation is paying a perpetual interest of nearly £200,000 a year. Is not the preservation of animal life, of which Nature has been so lavish in these regions, also an Imperial object? Is nothing due to this inheritance of the Empire? Can we not afford to spend, say, one-hundredth part, or £2,000 a year, to preserve our gifts in this respect? In the Transvaal, where it is almost too late, the authorities are spending at least twice as much to preserve the remnants of a fauna which was once abundant, but which was squandered. They have learnt its value, but all too late to save it, except at a disproportionate expenditure. Now in British East Africa we pay the salary of a single game officer, but what can he do alone in such a territory? He should have at least two assistants, besides watchers, in the Reserve.

Although our function is to watch for the safety of the fauna of the Empire, we may occasionally derive useful lessons from the experience of other nations. The Yellowstone National Park, in the United States, was the forerunner of true Game Reserves, of which the American nation and its President may well be proud. The report of the Commandant recently received raises questions which are well worthy of attention. The Park comprises about 5,000 square miles, but it is admittedly not extensive enough to cover the winter migration of some of the species. Valleys of a low elevation to the East and South, to which the wapiti and other species resort in the winter, and which were entirely free of white settlers twenty years ago, are now occupied, and the difficulty of an extension is greatly increased. This affords a lesson which it is most desirable for us to take to heart.

Then, again, the wild herd of buffalo still at large within the Reserve is described as decadent, so much so that an attempt is being made to catch up the calves to turn them in with the tame herd which is kept within an enclosure. This is a sad end to a noble free ranging animal, and it carries its lesson for us. If a species is once allowed to be reduced to a single small herd, its vitality is quickly lowered by in-and-in breeding, and its ultimate total destruction is highly probable.

This is not the place for elaborate criticisms of books, but it may be permissible to note two which are of especial interest to our members. Sir Charles Eliot's 'East African Protectorate' is a singularly complete account of the history and present condition of the Provinces comprising that interesting part of the Empire, as well as of the difficulties which face its administrators. We are chiefly concerned with his remarks on the means which have been adopted to preserve the animals. These are, perhaps, the more interesting, as he writes as one outside the fraternity of

sportsmen ; indeed, he regards the act of destroying an antelope as 'devilish,' but his sympathy with the settler who is also a sportsman is strong, and his views should be studied with care and compared with those of Lord Hindlip, printed in this number.

E. B. Schilling's 'Mit Blitzlicht und Büchse' ('With Flashlight and Camera') is by a German, written in German, and describes expeditions in German East Africa. He is a hunter of the somewhat sensational order, and his practice of catching lions in traps is contrary to our code, but in his illustrations he has opened a new line for photographers of wild life. His flashlight and camera are self-acting, and apparently are operated by wires which are stretched near live baits or drinking places in such a way that the creatures striking them in the dark release the apparatus. The portraits thus secured of predatory animals, as well as of those upon whom they prey, if not of high class as photographs, are very suggestive of the demeanour of both. Those of a lioness in the act of killing a donkey, and of a herd of impala, are full of character.

In the present number we are favoured with signed contributions by members of our Society. We wish to encourage this practice in the future, and shall always welcome such articles from the pen of those who, like Mr. P. L. Sclater, have made various aspects of the question of the conservation of species their especial study. Their views may not always commend themselves to the Society as a whole, but they have an authority of their own due to the personal weight of their writers.

Colonial Office, Whitehall: February 2, 1905.

MINUTES OF PROCEEDINGS AT A DEPUTATION FROM THE SOCIETY FOR THE PRESERVATION OF THE FAUNA OF THE EMPIRE TO THE RIGHT HON. ALFRED LYTTELTON (HIS MAJESTY'S SECRETARY FOR THE COLONIES).

PRESENT:

The Marquess of Hamilton,
Sir Henry Seton-Karr, Bart., M.P.,
Sir H. H. Johnston,
Col. Delme Radcliffe,
Mr. Edward North Buxton,
Mr. A. G. DuCane,
Mr. F. C. Selous,
Mr. S. H. Whitbread,
Mr. Rhys Williams (*Hon. Sec.*)

Mr. Edward Buxton: We are not here, Mr. Lyttelton, to make complaints; we come to you because we think the moment is appropriate, the Colonial Office having taken over, or being about to take over, so many great territories in regard to which the question in which we are interested is distinctly urgent. It is unnecessary to urge upon you the importance of this question. We should like to see uniform principles adopted, now that so many territories are to be combined under the Colonial Office. We regard the fauna which we find—a wonderfully varied fauna—especially in South Africa, as an Imperial inheritance, and we think that if the game were to be killed out, especially if species were to become lost, it would be an Imperial loss. It would be absolutely irreplaceable, and this generation would be held responsible by those who come after us. We believe it to be avoidable to a large extent even where the country becomes thickly populated.

We belong to an Association which was formed a year and a-half ago to watch this question, and we find that throughout the Empire there are quite a number of officials, especially of the highly placed officials, who take a deep interest in this question. We have, therefore, a very wholesome public opinion already scattered about the Empire. That public opinion ought to be supported by public opinion at home: and for the purpose of focussing it as a whole we have formed our Association.

We have watched very carefully for official reports on this subject. We notice that there is a very marked difference between them. Some show a very considerable knowledge of the question

and great anxiety with regard to it, and very wise measures are being taken. Others are extremely optimistic, so optimistic that we regard them with some suspicion. We think that that optimism is sometimes the result of an imperfect understanding of what is going on, even locally. Others, again, make no reference to the subject, and that we think a pity. It seems to show that they have not, in those territories, realised the importance which is attached to this question by a number of people.

Now, what we wish to ask you is whether it is not worth while that a certain amount of expenditure in all territories connected with this Office should be incurred for the purpose of preserving the animals. Take, for instance, British East Africa; a very considerable revenue is derived from the game, to put it on the lowest ground—from the licences—and nothing like that sum is spent on preserving it. We find in the last British East African Report an extremely glowing account of the game. One would think that everything was going on in the best possible way, whereas we do hear of various things there which we think are very likely to be extremely injurious to the game. For instance—it may be unavoidable—the most important Game Reserve there marches with the German territory, and we are told that a colony of Boers has been established on the boundary who habitually intrude on the British Reserve. That may or may not be the case, but we have not been able to hear of any measures being taken to counteract it, or any representations being made. We may be quite wrong with regard to it, but that is our impression at this moment.

Then there is another point about the expenditure. There are some territories where a very large expenditure is now incurred. Perhaps I may mention, for the sake of illustrating this point, that outside the Empire, in America, they are spending enormous sums on their Reserve. (Hear, hear.) Again, in the Transvaal, in proportion to its size, a large expenditure is being incurred. Why is that? Because the game was nearly killed out. In fact, it was left till too late, and where that is the case, and public opinion is only aroused at a very late stage, much greater expenditure has to be incurred in order to save the remnants. (Hear, hear.) Therefore, from the economical point of view, we wish to put it to the Colonial Office that it is worth while incurring now, while the game is still abundant, a reasonable expenditure to preserve the herds, and that it is worth while to have a reasonably strict administration, or otherwise, at a later stage, when some of the species have become so thinned out as to be difficult to preserve you will have to spend five or six times as much.

Now I should just like to mention three or four matters to which this Society attaches importance. Of course these suggestions are already incorporated in the Game Laws of different territories, perhaps in all—I am not quite sure—but this is, we consider, a very valuable point, to have a royal or sacred list of those animals which are to be absolutely immune from slaughter,

such as, in some cases, the giraffe. But this is what we think is the important part of it, that it should be absolutely in the discretion of the principal local administrator to vary that list from time to time. For instance, if there is a very serious epidemic, as happens sometimes, attacking the eland or the kudu, so that all but a few have been swept away, if they are not already in the list they ought at once to be put in and to be exempt for a certain period, at any rate, from further slaughter.

Another point to which we attach the highest importance of all is that there should be adequate Reserves in all territories. We are quite aware of the difficulties, and we are aware that such Reserves can only be established if the matter is taken in time; that is to say, if you wait until the whole country is settled up it will be much more difficult to do than it would be before that is the case. There are several considerations with regard to Reserves to which we should like to invite your attention. Perhaps the most important is that the Reserve should be capable of being easily watched, such, for instance, as the Southern Reserve in British East Africa, which is all along the railway. We attach the importance to that point—that it is kept under surveillance so that what goes on is easily ascertained—either a railway or a navigable river is an immense advantage to a Game Reserve. The Game Reserve in the Sudan is another case in point. That is bordered on both sides by a navigable river, the White Nile on one side, which is navigable all the year round, and the Blue Nile on the other, which is navigable in the high water.

Another very important point is that the Reserve should cover the migrations of the animals. Because you see a number of animals in one place in the winter, it does not at all follow that they are there all the year round; that is, of course, a matter of local knowledge and of consideration beforehand. It is very desirable that as many species should be included as possible, but that at any rate the migrations of those species that are most important to be preserved should be considered in laying out a Reserve. Speaking generally, we ask you to look at the matter as a whole throughout the territories under the control of the Colonial Office, and to see that in every one there are adequate Reserves at once established, and that expenditure in respect of that should be made so that they should be properly safeguarded.

There are some Reserves which have been laid out with the best possible intentions, which have a very fine appearance on the map, but which are really only laid out on the map—and that we deprecate. They rather tend to calm public opinion, perhaps, at home, but they are of no use at all for the preservation of the game unless adequate means are taken to secure them. In the great Sugota Reserve, which covers a large area of territory, I do not think any steps are really taken to safeguard it. If it is worth while establishing a Reserve at all, it is worth while spending a little money to see that it is properly watched; and that is a point which we would urge very strongly upon you.

Another point to which we would attach importance is the sale of horns and of hides—I mean, of course, their export or their sale on a large scale. That has been responsible for enormous destruction—I do not mean only in South Africa, but elsewhere. Experience shows that hide hunters have been responsible for terrible destruction, and we should like to see the export of horns and hides restricted.

Again, a very important measure which has been adopted in most of the territories, not in all, is that game licensees should be required to make a return of the game they kill. We believe that most sportsmen will always make an honest return; but the fact that they have to make a return does, we believe, exercise a considerable moral restraint upon sportsmen, some of them very young, who get bitten by the 'buck fever,' and who fire away far more shots than they need.

Another point is with regard to the game officer; in many of these territories there is an excellent and efficient game officer, and there ought to be such an officer in all of them. He is placed in a very difficult position; he is generally a junior officer, and we contend that the responsibility of enforcing the law ought to rest upon a higher official—that the highest Commissioner in each territory ought to be made responsible for any prosecutions or other enforcement of the law, and that the junior officer should not be required to take the very invidious course of instituting prosecutions without the direction of his superior.

Then with regard to the native question, which is, of course, a very difficult question: we should like to call your attention, if it has not been already called, to the valuable Report of the Chief Commissioner in British Central Africa. He has been extremely successful in putting on a gun tax, and in reducing the number of weapons in the hands of the natives.

The Colonial Secretary: Do you refer to Sir Alfred Sharpe?

Mr. Edward Buxton: Yes, Sir Alfred Sharpe. Most of the destruction due to natives, I think, will be found to be carried on by their ancient methods. Now, I do not know whether I am speaking the view of all those present, but my own feeling is that you cannot interfere with their ancestral methods—their trapping and their pitfalls. A year ago I was in Kordofan, and I found there immense numbers of native snares, which I have no doubt are very successful in catching the oryx and gazelles, because I found in the old deserted camps of the Arabs there quantities of the remains of those animals, obviously caught in that way. Well, they have always done so for an indefinite period: they have used those means, and I do not think it would be very easy, even if it is expedient, to interfere with them. But it is quite a different thing when you come to modern weapons, and we ask that special care should be taken, either by the methods adopted by Sir Alfred Sharpe or others, to prevent modern weapons getting into the hands of the natives, on the ground of the claims of the game if on no other; and we hope that care will be taken, and

that the attention of the authorities will be directed to this, to take every precaution that modern weapons should not get into the hands of the natives. Once they do, there is an end of the game. Finally, may I point out that the existence of game is a great attraction to settlers? If it is shot out or seriously reduced, the attraction is gone, as well as a considerable means of livelihood.

The Colonial Secretary: Do you mind my asking one or two questions? Do I understand that you wish in the Regulation uniformity throughout all the territories, as a recommendation?

Mr. Edward Buxton: Yes, general principles should be determined subject to local circumstances.

The Colonial Secretary: Of course I may say that I agree entirely with your object, but with regard to Reserves I see a reference here to the large Reserve that you pointed out to me—the Sugota Reserve. I suppose it is about 250 miles square, or something of that kind? Have you formed any estimate at all of what would be required to police that satisfactorily?

Mr. Edward Buxton: I do not say that it is not too big—I do not say that it is not needlessly large. It is far better to have a moderate area well watched and protected than a large area which is merely coloured on the map.

The Colonial Secretary: Yes. The reason I mentioned that was this—I speak really with great ignorance on the matter, but it seemed to me that a Reserve which should cover the migration of species would necessarily be a large Reserve.

Mr. Edward Buxton: Well, it depends upon the animal, and its observed migration. I think they mostly follow the food, the grass, which varies in different areas, and the water. Probably many species would not have to travel perhaps more than forty miles one way or the other, elephants much further, but such animals as the eland and the wildebeeste, which are still numerous there, are all the year round within a range of fifty miles.

The Colonial Secretary: Yes. You will probably admit that, for instance, in a poor Colony or Protectorate you must cut your coat according to your cloth, more or less; that is to say, that you must have a small Reserve if to police a large Reserve would be costly. Or do you suggest that, owing (which I quite agree is in some degree true) to its Imperial interest, the cost should be borne from home?

Mr. Edward Buxton: Well, the nation has 'pegged out claims' and must bear some of the charges.

Mr. F. C. Selous: Might I say that I fancy the difficulty with regard to establishing a Reserve in Rhodesia would be because of the fact that white men who go into that country are mostly prospectors, and it would be really difficult to restrain prospectors from travelling over the whole country if they thought that they were likely to find any payable reefs in it, and, supposing they did find payable reefs, probably the Game Reserve would be no longer maintained.

The Colonial Secretary: We have already had some

specimens of that difficulty in the Transvaal, which is open to prospecting of people ranging all over the country, and prospectors generally. You have difficulties, generally speaking, of course; there is the difficulty of those who are settling there and who wish to kill the game, not as sportsmen, but for self-protection.

Mr. F. C. Selous: In Northern Nigeria I do not think there is any at all.

The Colonial Secretary: I do not think there is. I do not think there would be much difficulty in creating a Reserve, but there is very great difficulty in doing anything in Northern Nigeria which would cost any money at all. It receives now, I think, about £350,000 a year from this country as a grant in aid, and anything which was put on to the country would have to pass the Treasury.

Mr. Edward Buxton: Then £1,000 a year for the preservation of game would not be a very large percentage on what the nation contributes already.

Sir Henry Seton-Karr: I should like to ask a question upon that; would it not be possible to consider making this a question of Imperial expenditure? I do not think you will ever get an effective Reserve in Africa, or anywhere else, unless you make it a question of Imperial expenditure. With regard to the progress made for many years, which has been referred to, in the North-West of Wyoming, there what has been done is a question of United States control and United States expenditure. It is done, and the Reserve is absolute; it is guarded by a military post, and it is carefully guarded by a troop of cavalry and game wardens. It is enforced in the most absolute way; the Commissioners there have powers to inflict fines.

The Colonial Secretary: Yes; I have been there.

Sir Henry Seton-Karr: The reason is that they have learned a bitter lesson, as Mr. Buxton has already pointed out; they have found that the buffalo has been exterminated, and that the wapiti, one of the most splendid animals in their district, has been in danger of extermination, and they have realised that the only way to achieve their object was to make it a central office and to enforce it with the most absolute severity. I submit that to you as a very good example.

I am not sanguine enough to believe that we shall get the cost of a Reserve, at all events for many years, out of South Africa. I think it ought to be a question of Imperial expenditure, and I think that would possibly meet the question. Of course I know there are enormous difficulties with regard to prospectors, and all that, but the American people have overcome that in the particular localities. It seems that if one can find a Reserve, if it is possible, which is comparatively free from minerals, in which you could make it absolute by means of a resident military post, or a guard, and if that were done at the Imperial cost, it would be the most successful way of dealing with the matter.

Mr. Edward Buxton: Before you leave that question, may

I point out that the existence of the game attracts settlers, and also wealthy visitors and capital?

The Colonial Secretary: Yes, very. I have been there, and they recognise that point very much; in British Columbia they are becoming a great source of attraction.

Sir Henry Seton-Karr: I should like to endorse that with regard to Wyoming: the fact that the national Reserve which has been recently extended, mainly by the instrumentality of President Roosevelt, exists, and the strict regulations under which the game is preserved have added to the attractions of the country round the Reserve. The game overflows, and it is the best part of the continent to go to now, and well worth while going for the sake of the sporting. If it had not been for that, the country would have lost that which I venture to think is of direct additional value, increasing the value of the territory.

Sir Harry Johnston: Perhaps I might say a word about this Sugota Game Reserve, as I was responsible for its coming into existence. It was really only a measure taken, with the assent of the Foreign Office, as a sudden precaution, because a very large sporting expedition was going there with a number of armed Somalis; and it was said (I do not know with what amount of truth) by my predecessor that in a previous expedition a great deal of destruction had been inflicted. Therefore I hurriedly pronounced all that region to be a Game Reserve merely to gain time. But I certainly do not agree with its extensive area. I think it is quite unmanageable. Since then I have been in a portion of that country, a little more than three years ago, and it was obvious to me that that game fluctuated a good deal, according, as Mr. Buxton says, to the season, the amount of herbage, the water, and so on.

With regard to fixing these Game Reserves in future in East Africa, I do not think very extensive areas are necessary. They ought to be fairly compact, and I should say as much as possible around the slopes of great mountains, because the migrations of game in those regions seem to me to consist very much of going up or coming down, according to the season of the year. I have seen big game myself at extraordinary altitudes—for instance, at Kilimanjaro at altitudes of about 14,000 ft. during the dry season, when the plains were parched. I should think when the Colonial Office puts method into all this it might certainly give attention to the plains surrounding Mount Kenia, which are not very well looked after by intending settlers, and which would be very much adapted to the establishment of Game Reserves, the more so as in the dense forest on the slopes of Mount Kenia there are some of the most remarkable animals existing in South Africa, including the Giant Pig, which was discovered first in the Congo Free State, and re-discovered by Mr. Hobday on the slopes of Mount Kenia.

As regards West Africa, in the coast regions the country is so densely forested—I speak after some considerable personal

acquaintance with it — that I do not think much precaution is required as regards restricting Europeans. But I quite agree with what Mr. Buxton says as regards guns in the hands of the natives, especially in the Colony of Sierra Leone. They seem to be killing everything that is eatable. The same thing has taken place in the coast lands of Nigeria: it is there so flagrant that it is an example of what can occur when semi-civilised natives have unrestricted access to guns and gunpowder; along the coast every bird and beast of every kind practically has been exterminated. On the Gold Coast the same thing is going on, but owing to the country being so densely forested, the Europeans are not able to attack the game in such an unscrupulous way, if they wished to do so.

Mr. S. H. Whitbread: I do not know whether I might endeavour in a very few words rather to bring back the discussion to first principles, because you, Sir, I think, a few years ago had an opportunity of judging of the state of things in our oldest Colony of Newfoundland, where there is a very well-founded apprehension with regard to the extinction of the Cariboo. If you had extended your trip on that occasion into the United States, you would have found the examples, to which Sir Henry Seton-Karr has alluded, of the most remarkable force of public opinion which has grown up throughout the United States and also in Canada, taking the form of a determination not to allow the same fate to befall the other game as has unfortunately befallen the buffalo. The result of that, of course, is that public opinion is strongly supporting the regulations which are made by various legislators, and as a consequence the game laws work well. It is a case of *quid leges sine moribus*. Of course, in South Africa there is no effective public opinion to enforce and support such things as game laws; but I do not think we are claiming too much when we say that in the future, if South Africa is to become a largely populated and flourishing portion of this Empire, similar public opinion will arise; and our great fear is that it will arise too late. (Hear, hear.) We venture to contend that it is the province of those who govern at home to tell public servants and public departments to anticipate and in a way to guide and lead public opinion by making regulations, which may in some cases at first sight appear to be harsh and arbitrary, but for which I am quite sure in the future the Government would be thanked by the inhabitants.

Mr. F. C. Selous: It appears to me with regard to the whole of the northern part of Southern Rhodesia, the whole of the country lying between Buluwayo in the line between Buluwayo and Salisbury—if you go sixty miles to the north of that you get into the Tsetse Fly country and from there to the Zambesi it is all Tsetse Fly country. That can never be settled upon, and no domestic animals will ever live there. I look upon that as an immense Game Reserve in itself, owing to its natural conditions.

If you take the high plateau of Rhodesia, the Mashonas have

possessed firearms for some time: they were all in possession of flint-locks when I went up there thirty years ago, which they got from the Portuguese. Game was never very plentiful on the high plateau of Rhodesia: the natives kept it down too much. But still I think the game is quite plentiful, and all my friends in Salisbury and Buluwayo inform me that game is not decreasing at all.

The COLONIAL SECRETARY: Someone told me last night that it was not substantially decreasing.

Mr. F. C. SELOUS: Yes; in fact, after the first Matabele War, when the natives had to bury their firearms, we found that they had a lot of guns a couple of years later which they were afraid to show, and therefore they buried them, but they used them afterwards. But the antelope and big animals of that kind I saw myself within thirty miles of Buluwayo, and twenty years before one would not see a sign of an antelope within a very much greater distance. The game was all beginning to come up again then.

Colonel DELME RADCLIFFE: I should like, if I may, to make one or two remarks on the subject of the protection of elephants. First of all, I think the minimum size for ivory is too low — too small. I think that in East Africa the minimum should be something about 40 lbs., which would show that nothing but bulls had been killed, and which would protect the females entirely, and also protect the smaller bulls. The result would be that people would only go for the very biggest bulls, which ought to be killed off, and not the smallest ones.

Another point:—Mr. Buxton said he thought the natives should not be interfered with when they killed game in accordance with their ancestral customs, which should not be touched. I do not agree on that point, because the spread of the Pax Britannica in East Africa has given facilities to natives for killing game in a way in which they did not have the means before. In East Africa, for instance, in the old days the natives never entered the area which is now called the Reserve, because the Masai were there. When I was in the Athi Plains three years ago the whole country was covered with Wakamba at every water-hole, and they were killing the game in all directions; everything that walked was killed with poisoned arrows. Therefore I think that, really, as we allow the natives to kill game to a certain extent by preventing fighting amongst them, we should also prevent their trapping and killing on a large scale.

The COLONIAL SECRETARY: I will not say much beyond thanking you for having given me very much valuable information on this point. I may perhaps say that I do not think there is any chance at the present moment of getting any money from the Imperial Exchequer, but I think we must endeavour—I certainly will endeavour so far as I am concerned -to look carefully into the question of Reserves all over the African Colonies, and that we must endeavour to bring them within such areas as you have

mentioned—along the navigable rivers or along railways, where feasible; and also to restrict them to such size as that there should be a fair chance of the Game Reserve within their borders being effective. I am afraid that those objects will necessarily be dictated considerably by the funds which are available in the Colonies—(hear, hear)—and by the large amount of settlement which has taken place along the railways and along the navigable rivers, those being places of course where the settlers naturally first go. So far as I have been able to judge, I think a good resolute opinion with regard to the preservation of game is being set in that country. (Hear, hear.) I think that that spirit will probably pervade Rhodesia also; and inasmuch as all South Africa is becoming closer to this country and is under an observation which, from my point of view, I consider is unhappily microscopic—considering the whole of that country is coming so near to us and so near to our observation, I have great hopes that any signs of depredating the elephant resources in Cape Colony may be restrained by a vigorous public opinion. (Hear, hear.) But all of you gentlemen know very well that any interference in that matter with a self-governing Colony by the Colonial Office would be productive of disaster rather than the reverse.

In general I may say I have read some of your publications, and I feel that I have myself learnt from them, and I feel that in our Colonial possessions in Africa the matter is to be dealt with by pressing upon Colonists the great source of value of the game, merely from a commercial point of view, which must increasingly be the result of such an attraction as great game. (Hear, hear.) Having regard to the fact that we are all becoming so crowded in the older countries, and that the means of communication are so much more rapid and easy, so as to keep beautiful places like the Yellowstone Park in the condition in which they are kept in America, we hope similar places will be also kept in Canada, and that they will be an example to South Africa. I cannot believe that in a country so progressive as South Africa at any rate is showing itself, those lessons will be lost, and that so splendid an attraction to all Europe and to all the more crowded populations will be lost. I am deeply obliged for the information and suggestions you have kindly given me.

Mr. Edward Buxton: We are exceedingly obliged to you, and we thank you for having allowed us to take up an hour of your valuable time, but we hope it has not been lost. We feel that the position will be improved from our point of view.

LETTER FROM SIR ALFRED SHARPE.

Slaughter by Natives.

We have received the following interesting letter from Sir Alfred Sharpe, C.B., the Chief Commissioner of British Central Africa.

'**The Residency, Zomba, British Central Africa: 14th October, 1904.**

'Dear Sir,—With regard to the preservation of African game, a point which is often lost sight of, but which has been brought forward on more than one occasion by both Mr. Selous and myself, is that there seems to have been a general tendency, while rigidly restricting Europeans from shooting big game, to leave the native free to slaughter all he wishes without let or hindrance.

'I see that steps are now being taken in several directions to restrain the native hunter more or less, but I think that more should be done with this object.

'In the Protectorate of British Central Africa native slaughter of game has been almost entirely stopped, and the manner in which this has been done is as follows:—

'(1) The enforcement of a native gun tax, the result of which has been that, whereas twelve years ago every native carried a gun, now not one in a thousand owns one.

'(2) Natives are held here to be entirely subject to the same game regulations as Europeans, and in consequence very few take out licences or shoot game.

'(3) All District Magistrates in the Protectorate punish natives found guilty of shooting game without licences.

'With regard to "sanctuaries," my own view is that it is of little use making a "sanctuary" unless the necessary steps are taken to see that no shooting whatever takes place within its boundaries. I also think that a Game Reserve or sanctuary should not be shot in *under any conditions whatsoever*. No European or native should ever be given permission to shoot within a Game Reserve.

'What has been found in British Central Africa is that a vast amount of indiscriminate slaughter of small game is done by means of nets and pitfalls. Elephants also of all ages and both sexes formerly used to be killed in large quantities in pitfalls.

'I think that if the real object which we desire is to be reached—viz., the stoppage of indiscriminate slaughter of game—we must check the natives in the directions I have pointed out.

'I am,

'Yours faithfully,

'Alfred Sharpe.

'Rhys Williams, Esq.,
'2 Temple Gardens, London, E.C.,
England.'

GAME PRESERVATION IN THE TRANSVAAL.

By Major J. Stevenson-Hamilton
(*Warden, Transvaal Government Game Reserves*).

Previous to the war, notwithstanding the fact that elaborate game laws had been framed, and two Game Reserves set aside by the Boer Government for the preservation of the fast disappearing fauna of the country, little was in reality done to check the professional hunter, whether Dutch or English, and the native armed with breechloading rifle, from a continual and wanton destruction of the wild animals. Those whose duty it was to see the law in this respect observed were both indifferent and venal, so that no doubt a very few years more would have seen the complete extermination of all the larger species. During the war itself the 'Low Veld' so called—*i.e.*, the strip of unhealthy and thickly wooded country lying between the Drakensberg and the Portuguese border in the North-Eastern Transvaal—was patrolled by a corps of irregular horse whose duty it was to guard the border; and though they no doubt were responsible for a considerable amount of destruction, their adjutant, Capt. Greenhill-Gardyne of the Gordon Highlanders, a keen sportsman with large Indian experience, was successful in limiting it considerably, and was able to save the larger animals, such as buffalo, giraffe, and hippo, from the fate which threatened them.

On the conclusion of peace it was decided to inaugurate a system of game protection, and to revive as a game nursery the 1,500 square miles of country known under the old Government as the Sabi Reserve. The matter was placed in the hands of Sir Godfrey Lagden, head of the Native Affairs Department, who, from the keen interest he took in all matters affecting sport and his previous experience of African game, was particularly anxious to see the scheme carried to a successful issue.

Accordingly, on July 1, 1902, the Sabi Reserve (1,500 square miles) was declared, and a warden, with a staff of three white men and fifty native constables, was appointed, a sum of £4,000 being set aside in the Estimates in order that adequate pay and equipment might be provided. Shortly afterwards an excellent code of game laws affecting the whole country was drawn up, by which a licence costing £25 was required to shoot a limited number of the larger species, while to kill game birds and antelope up to and including reedbuck and impala a £3 licence only was necessary. The promulgation of these laws was soon followed by that of by-laws

affecting Game Reserves, restricting traffic within the latter to certain routes and giving certain special powers to the warden and his staff.

In June 1903 a small Reserve which had also been formed by the previous Government, consisting of some 100 square miles, was declared between Swaziland and Zululand, followed shortly after by the addition to the Sabi Reserve of some 5,000 square miles on the north and the Singwitzi Reserve of approximately similar area to the north of that again.

Thus at present the Transvaal Game Reserves run in a continuous line along the Portuguese border for some 300 miles, with an average width of between 40 and 60 miles. The animals found consist of all those indigenous to the country with the exception of the elephant, the rhinoceros, and the eland, which it was unfortunately too late to save. But buffalo, giraffe, hippopotamus, sable and roan antelope, zebra, waterbuck (common) tsessebe, kudu, impala, and reedbuck, besides wild pig, ostriches, and all kinds of smaller antelope, are found in fair numbers and have all increased considerably in two and a-half years of practically complete protection.

As regards the carnivora, lions, though not in any numbers, are well distributed, leopards and cheetahs are numerous, the wild dog (*Lycaon pictus*) is unfortunately very plentiful, together with the saddle-backed and the ordinary jackal, the striped hyæna, caracal, cerval, civet, and genet cats.

The actual native inhabitants of the Reserves are under 5,000 (men, women, and children), but there is a large population on all sides outside their limits; and though guns are forbidden in British territory, the natives on the Portuguese side of the border are all armed in this manner, and one of our greatest difficulties is the protection of the frontier from their inroads. During the past the natives inhabiting this part of the country have lived almost entirely on the game; they have been more or less migratory in their habits, have been in the habit of barely sowing enough crops to last them till the next season, and have never made any pretence at maintaining livestock; they are of mixed race.

In the Transvaal generally the same game laws hold good for natives as for white men—*i.e.*, no game may be killed within the Reserves, nor outside of them without a licence, by any person, be he white man or Kaffir. All trapping and snaring of game is strictly forbidden throughout the country, as is the sale of eggs of game birds without special permission. These strict rules work admirably as regards the Kaffirs, who, instead of spending their days in the pursuit of game or loafing in their villages, are now induced to devote more time to the cultivation of the land, the rearing of livestock, and, as regards the younger men, to the earning of wages in the service of Europeans, either as private servants or on public works. A very dry and barren season immediately after the inception of the new game laws showed that the prevention of game destruction had by no means, as was in

some quarters predicted, the effect of causing the natives to starve, but, on the contrary, by forcing them to go out to work and earn the high wages which the Kaffir almost invariably receives in the Transvaal, actually raised their standard of living considerably. The population of the Game Reserves, as a whole, now take the preservation of the fauna as a matter of course, and there are very few cases of breach of the game laws among them, nearly all the poaching cases which have come to light being on the part of persons living outside or in Portuguese territory.

During the healthy season, from May to October, the low veld is invaded by white men in large numbers, prospectors, traders, and would-be poachers, while large parties of professional hunters *en route* to Portuguese territory are continually passing through. The majority of all these are not in the least particular with regard to the game laws when not actually under observation.

To contend with these difficulties Government has for the last two years voted a sum of £5,000; this supports a staff consisting of a warden, four white rangers, and seventy native police. The white staff receives an allowance for horses (warden two, rangers one each), which, though a necessity, are an expensive item, as it is necessary to maintain what is known as a 'salted' horse—*i.e.*, one which has recovered from the deadly horse-sickness; and as only 5 per cent. of the animals exposed to the climate of the low veld actually survive, it will easily be seen that a 'salted' horse is usually an expensive purchase.

For transport purposes a light waggon and oxen and about a score of pack donkeys are kept, the latter being necessary for large portions of the country which, either owing to the denseness of the bush or its hilly and rocky nature, is impracticable for a waggon.

The Game Reserves are for protective purposes divided into sections—the Singwitzi or Northern Reserve forming one, the small Pongola Reserve in the south of Swaziland a second, and the Sabi Reserve, which owing to its position is more difficult to protect, being split up into three.

The Singwitzi Reserve has a white ranger and a staff of twelve native police.

The Sabi Reserve has three rangers, each with fifteen men under him.

In the Pongola Reserve two native constables are considered sufficient; the remainder of the police, including special despatch runners, waggon boys, &c., are under the direct orders of the warden at headquarters, which occupies a central position at the head of the Selati railway line on the Sabi River.

The police of the various sections are distributed in posts of two around the borders of the Reserves, and stationed so far as possible as to watch all important paths, fords, and defiles; it is the duty of one constable to patrol daily to the next post, sleep there and return next day, noting all suspicious tracks and taking action according to circumstances. The white ranger in charge of

the section patrols the picquet line on horseback at frequent intervals, and receives daily reports when not actually doing so from the police under his orders. Full monthly reports are rendered to the warden from each section, and statements of unusual occurrences are sent in to him at once.

Special patrols are sent into the interior of the Reserves to report on the game and arrest trespassers who may have got through the line of police picquets.

Carnivora are destroyed at all times by the staff. The native police trap under supervision, rewards on a regular scale being paid for the various kinds of vermin killed by them. The police are armed with spears only, guns not being allowed them, and under no circumstances are they allowed to interfere with the game.

During the twelve months ending October 31, 1904, the total of carnivora destroyed in the Reserves was 230, actually reported, but the real total was probably a good deal in excess of this (lions, 3; leopards, 7; cheetahs, 3; wild dogs, 29; hyænas, 21; jackals and wild cats making up rest of total). During the war and before it hyænas and wild dogs had increased a good deal beyond their proper proportion in regard to antelope, but this inequality has now, to a great extent, been adjusted.

In a Reserve like this the increase of carnivora must be carefully watched. Of those I have mentioned, perhaps the most destructive is the wild dog, and I do not remember that any writer has adequately described its depredations. Having had somewhat exceptional opportunities of observing this animal, I have appended to this paper some notes on its life-history and habits, from which it will be seen how important a bearing its multiplication may have on the prosperity of the game.

The maximum penalty for killing game within the Reserves is £100, with the option of six months' imprisonment on each count. Owing to the extent of the country, the thickness of the bush, and the other difficulties inseparable from all wild regions, it naturally takes unremitting vigilance in order to get the necessary evidence to secure convictions in court; especially is it difficult to prove a case when it comes to one or two native constables being the only evidence available against several white men. So far, however, the results have, upon the whole, been eminently satisfactory, and very little game has been killed since the inception of the Game Reserves, which fact is sufficiently demonstrated by the wonderful manner in which the herds of game have lost their fear of man in most parts of the Reserves.

Game Protection Outside Reserves.

About the same time as the Game Reserves were inaugurated a number of influential gentlemen in the Transvaal instituted a Game Protection Society. This Society (of which Mr. E. F. Bourke, member of the Legislative Assembly of Pretoria, is chairman) has now branches in many of the principal towns and villages of the

Transvaal, and has hundreds of members. Its object is to secure observance of the game laws generally, and especially to check the terrible destruction done to fur and feathered game by irresponsible Kaffirs. A printed list is published periodically of prosecutions undertaken and convictions secured through the medium of members of the Society. Naturally its efforts are principally directed towards the preservation of the game in the more inhabited and civilised districts, in which the members as a rule live, and its influence is already widely felt.

This article cannot be brought to a conclusion without a word being said as to the enormous assistance which the united Land Companies have given to game protection by lending Government their hearty support, as well as by allowing their property in the low country to be included in the Government Game Reserves. As the private land owned by these companies comprises much of the best of the game country, and as they have granted full powers to the Government for the protection of the game on it, it can easily be seen how much their action has helped the general object in view.

GAME RESERVES.

'1. (*a*) CONDITIONS ON AUGUST 1, 1902.—When I entered the Sabi Game Reserve on the above date, I found a native population within its boundaries of between 2,000 and 3,000, including women and children; most of the men had rifles and guns of one sort and another, and all had dogs, and in most districts shot and trapp d without interference. There were also four posts of Steinacker's Horse consisting of perhaps in all forty white men and 150 natives: all these got their meat almost entirely from the game which they shot. They, however, stopped the kraal natives in their vicinity from shooting, and in the neighbourhood of Sabi Bridge shooting was not allowed lately, though it went on to a considerable extent on the railway. All the natives in the employment of this corps were armed with M.-H. rifles, and they killed game whenever they wont, being on the whole responsible for more than the white men. Very few carnivora were shot during this period, but many thousands of buck, especially impala and wildebeeste. Boers also came down and shot for biltong in the western districts of the Reserve, where they practically exterminated the larger antelope.

'(*b*) CONDITIONS ON AUGUST 1, 1903.—All natives have left the Game Reserve, which is now uninhabited by human beings except the warden, three rangers and native police or game-watchers.

'The latter are not allowed firearms, nor are they or the rangers permitted to kill buck, unless in the case of the latter under exceptional circumstances. White men entering the Reserve are closely watched, and very little if any game has been killed recently on the railway, either by Europeans or natives.

'The carnivora are hunted when possible, and twenty-two or twenty-three wild dogs and about twelve hyaenas have been accounted for. This ratio is likely to increase as their haunts get to be better known.

'2. VIOLATIONS OF RESERVE.—During the summer, especially in the early part, several cases occurred of natives entering the Reserve to kill game both from the Transvaal and Portuguese Territory. They believed that old conditions still obtained and that no white man would be found willing to travel about after November in the low veld, and that they could hunt with impunity. No doubt some were able to do so; but two cases

which were brought to Court --one for killing a zebra and another for killing a warthog and impala, and which were severely dealt with; and also the case of a boy from Portuguese territory who was found hunting with a M.-H. rifle, and who received an exemplary sentence—had the effect of putting a complete stop to depredations on the part of the natives; and under present conditions they are not likely to give much trouble, although it must be borne in mind that natives are quite able to kill and capture large antelope without guns.

'There has been no proof of any white men shooting in the Reserve, although I believe that one or two men living at Hectorspruit and Kaapmuiden used to enter the Reserve and shoot during the last close season until I put a trustworthy ranger at Kaapmuiden. Some of the storekeepers living on the Crocodile near Komati Poort are also suspected of shooting on the Reserve side of the river, but no proof of it can be adduced; in any case these men only venture over for an hour or two and close to the river. Now that by-laws have been passed giving me authority to stop people entering except by certain roads my hand will be strengthened against men like the above.

'3. Difficulties to be Contended with.—The difficulty was to stop men who came into the Reserve ostensibly to look for minerals. Some of these were genuine, others merely used it as a pretext to cover their shooting. The class of man referred to is quite happy if he can merely shoot a buck and leave it lying on the veld, not even taking away the meat except for immediate use. Several applications have been made to quarry and work coal in the Reserves, which, if granted, would be absolutely fatal to the scheme of preservation.

'Portuguese natives armed with guns who can dodge backwards and forwards over the border are also a grave difficulty to contend with.

'There is a good deal of native traffic between the Crocodile and Sabi, natives going home from working in Komati Poort and Barberton chiefly, or people on the Crocodile visiting their friends north of the Sabi or at kraals under the Drakensberg, and *vice versa*. There is but little white traffic, and this is confined to men going to shoot near the Oliphants, Customs officials, prospectors, and others whose calling is uncertain. A road has always been kept open for this traffic, and a notice defining it has recently been put in the local paper.

'4. Status of Game.—Before the Reserve was proclaimed the game was attacked by white men chiefly in the winter, by natives and by carnivora all the year round. It now only suffers from the latter, which are being kept in bounds by shooting, while the game is immune from the rifle, so that it will be readily seen that, if game could not be exterminated under the old conditions, it can hardly help increasing under the new.

'The Sabi Reserve favours certain kinds of game, while others do not thrive in it so well as they do north of the river. Much of

the Reserve is covered with very dense thorn-bush and there is a dearth of country in any way open, except in the extreme west, and a small strip in the east under the Lebombo. In the former country, once the habitat of numerous sable and roan antelope, big game has been practically exterminated by Boers and by Kaffirs. I will now take the various species of game in succession.

'*Elephants* existed in fairly large numbers up to forty years ago in the Sabi bush, but as there are no herds in any way adjacent I see no prospect of their returning to the Sabi Game Reserve.

'*Rhinoceros* (*Black*) once existed in large numbers all over the Reserve, now reduced to a solitary male specimen who frequents the thick bush along the Sabi. I see no chance at present of re-stocking.

'*Rhinoceros* (*White*) have long been exterminated.

'*Hippopotamus*. There is a herd of five at Komati Poort near junction of Komati and Crocodile River; a calf was born lately.

'Another herd of four and a young one frequents the Crocodile River in the neighbourhood of Kaapmuiden. On the Sabi there are perhaps five at most to be found, so far as the Game Reserve extends, but they travel down the river in the dry season and are seldom seen on Transvaal side of the border.

'This animal breeds and increases very slowly, but only one has been shot, so far as I know, in the last three years.

'*Giraffe* were once very numerous in the Game Reserve, and their bones may be seen almost anywhere in the bush. The number is now reduced to about four or five. Some say seven, but I have never seen the spoor of more than four together, and have only once seen a single giraffe; there is no reason why they should not increase, but it will take a very long time. Reasonably I believe there are not more than five at present.

'*Buffalo*. There is a herd of eight which frequents the thick bush between the Sabi River and Gomondwane (which lies ten miles north of the Crocodile). The herd seldom ventures out of this bush, and the animals are extremely wary and shy. I believe none have been shot for some years.

'Like all other large game they take a long time to increase, especially as the calves often fall victims to lions, but given time and no epidemics these will, without doubt, be a fine herd in the future.

'*The Eland*, once numerous in the West, was exterminated many years ago by the Trek Boers.

'*The Sable Antelope* has also suffered much. There are still a few left, principally in the South-West of the Game Reserve near the Crocodile. There are probably not more

than twelve of them in the whole Reserve, and I am inclined to think this is a liberal estimate. There is, however, every reason to think that they will increase, as they, in common with all the other larger antelope except waterbuck, have comparative immunity from the carnivora which hang about the rivers and feed on the impala.

'*Roan Antelope* were believed to have been exterminated, but two were seen near the Crocodile River about two months ago. There are a good many in Portuguese Territory not far from the border, and no doubt those seen were visitors from there, and it is very probable that others may follow. This antelope is now extremely rare in the Transvaal, and should be specially protected.

'*Tessebe*.—A troop of five were seen about nine months ago on the flats near the Portuguese border, but no one has come across them since, and it is to be feared that they must have recrossed the border. This, if still in the Reserve, is the only troop of these animals south of the Sabi.

'*Blue Wildebeeste* once existed in large numbers throughout the Reserve, parts of which are eminently suited to their habits; these animals have been so shot down that only some three troops of from ten to twelve members each, and a few old solitary bulls, who generally run with the herds of impala, are left. However, a few years will set them on a good footing once more.

'*Waterbuck* exist in fairly large numbers along the Sabi and Crocodile Rivers; there are certainly no less than one hundred in the Reserve, but a few were killed by lions in certain districts, and a certain number were shot just on the western border (but out of the Reserve) by sportsmen from Kaapmuiden, before the Proclamation protecting them came out. They will certainly increase if left alone.

'*Koodoo* are not numerous, but as they frequent thick bush and generally ungetatable places very few have been shot within the last few years. There is a troop of twenty near the Crocodile, and I saw a small troop of three cows and a young bull near the Sabi a month ago. There may be thirty-five in the Reserve, not more, but their prospects are excellent.

'*Hartebeeste*.—None in the Reserve.

'*Ostrich*.—None in the Reserve, though in large numbers north of the Sabi.

'*Zebra*.—There are about four troops, each having from eight to twelve members; as a rough estimate, forty in all. They are not greatly troubled by carnivora, and will do well.

'*Impala*.—These animals are by far the most numerous in the Game Reserve, which appears to be exactly adapted to them. All records and information point to the Sabi as

being *par excellence* the home of the impala, so far as South Africa is concerned. Some few years ago they were greatly reduced by excessive shooting, and they still form almost the exclusive food of the lions, leopards, cheetahs, and wild dogs, while no inconsiderable number annually fall victims to the larger crocodiles. Hyænas also kill a good many of the young buck. In spite of these drawbacks they breed with such rapidity that even in the last twelve months there is a considerable increase, nor is there any manner of doubt but that, provided the carnivora do not receive any assistance from man, in some five years they will exist in very large numbers, especially if the carnivora are kept within bounds by the staff of the Reserve. It is difficult to form anything but the very roughest estimate of their present number, but there cannot be less than nine thousand, of which perhaps three thousand annually fall victims to the above-mentioned carnivora. This still leaves a margin for a very considerable annual increase, and it will be borne in mind that the latter will not increase in proportion, but will rather tend the other way.

'*Reedbuck* are numerous in the East and West of the Reserve, and are found in isolated localities elsewhere. I should roughly guess at their numbers as two thousand and allow six hundred per annum as the prey of carnivora. They were being rapidly killed out by man previous to the establishment of the Reserve, but there is now no fear for their future, though they are not so extremely prolific as impala.

'*Mountain Reedbuck* (*Rooi Rhebok*) are found in small numbers in the south-west corner of the Reserve and along the Sigazi River. There are perhaps forty in all; now that shooting is stopped they will increase, as they are out of the beat of the carnivora.

'*Vaal Rhebok* does not exist in the Reserve, which is unsuited to its habits.

'*Klipspringer* are found in two or three places in suitable localities, probably at least fifty in all. They are well able to take care of themselves in the absence of sportsmen. Leopards kill a few.

'*Oribi* are occasionally met with in the extreme West, but cannot be considered indigenous.

'*Steinbuck* are numerous in certain localities, principally in East and West.

'*Duikers* abound everywhere; wild dogs, leopards, and pythons take a considerable toll, but make no real impression on their numbers; hyænas occasionally find and kill the young ones.

'I have not seen any erysbuck, but there may be a few in the western part.

'*Bushbuck* are very rare indeed. I have seen them at different times by the Sabi, and a half-grown one on the Crocodile; the locality seems unsuited for them for some reason. They abound in the strip of country which it is proposed to add to the Reserve on the west.

'*Warthog* suffered much from rinderpest (eating the dead animals), but are now recovering in numbers, and are fairly well distributed throughout.

'*Bushpig* are rare in the Reserve itself, but in the above-mentioned strip to the west are numerous.

'*Hares* and *Partridges* of all kinds abound.

'*Bush Khoraan* and *Dikkop* are very well distributed.

'The large *Paauw* is rare, but exists. There may be twelve in the whole Reserve.

'*Guinea-fowls* are found near the rivers in the localities suited to them. They would be in large numbers but for their numerous enemies, wild cats and birds of prey chiefly.

'CARNIVORA.

'*Lions*.—I know of nine lions, but there may be a few more.

'*Leopards* are rather numerous, but seldom or never encountered.

'*Wild Dogs*.—A pack, originally consisting of forty members, hunts the Sabi for about ten miles below the bridge; this pack has been reduced by about fifteen. A smaller pack lives in the bush near Gomondwane (Eastern District). Three of these were brought to book about a month ago. The third pack, which is about forty strong, hunts along the Crocodile between Kaapmuiden and Hectorspruit; five out of their pack were shot recently. So far as I know, there are only these three packs in the Game Reserve.

'*Hyænas* are very numerous throughout. About twelve have been killed since the beginning of the year. They are a source of danger to the young game.

'*The Cheetah* (or hunting leopard) exists, but is very scarce.

'*Jackals* are numerous.

'*Cerval* or *Tigerbush Cat* is rare.

'*Civet Cats* equally, or more so.

'*Genet Cats* are numerous.

'*Kaffir Cats* also exist in most places.

'*Lynxes* are not numerous, but exist in all the thick bush near the Sabi.

'*Pythons* and *Snakes* of all kinds are pretty numerous in the summer.

'*Crocodiles* swarm both in the Sabi and Crocodile Rivers, and kill a good many impala and other buck. About seven have been killed (crocodiles).

'On the whole I consider the prospects of the Game Reserve excellent, but no shooting of any kind must be allowed or the

scanty remnants of the large antelope will become alarmed and leave the district. It will be at least five years before the rarer kinds of game show in any numbers. It would be fatal to allow irresponsible people to come into the Reserve to shoot carnivora; these latter can be well dealt with by the staff, who, in doing so, take care not to disturb the game. As time goes on, and we become more and more familiar with the haunts of the wild dogs, there is no doubt that a proportionately larger number will be killed.

'When it is considered that up to a year ago both white men and Kaffirs were hunting daily and the carnivora were more numerous than to-day, and that still the game managed to exist, it will readily be seen that the carnivora alone can make no great impression, especially when they themselves are being assiduously hunted.

'Report on Singwitsi Game Reserve.

'I left Sabi Bridge on September 4 and crossed to the Oliphants River on 13th of that month, travelling with pack donkeys for about 150 miles to the north of it. I found little or no game on the Letaba, which I followed for about thirty miles. There are many kraals on the north bank (Reserve side), the natives of which trap extensively, and hunt with bows and poisoned arrows. There is game south of the river, out of the Reserve further up. A native who passed through two months ago told me that there were zebra and wildebeeste on north bank, but more game south—*i.e.*, out of the Reserve. There are no people living there, which may account for it. Following the Itendi River, I went on north. Here there were signs of much game in the past, but now there are only a very few individual tressebe and waterbuck, a few duikers, and I saw the spoor of five sable antelopes and four zebras. In forty miles I actually saw no game whatever, the reason being that during the war and before it this was one of the favourite Boer hunting-grounds, while this winter two separate parties of Boers have shot along the river—one party twice, and the other once. I came on the former party, four Dutchmen with waggons. There was no evidence at the time to show that they were law-breaking, and they assured me that they were only on their way back from shooting in Portuguese territory. Having no status as a J.P. in Zoutpansberg District, I was unable to do more than warn them. However, two days later, thinking I might learn something more, I rode to their camp, which they had left, and found remains of freshly killed wildebeeste and waterbuck, so that I hope we may get a conviction against them. The natives said that they shot a great deal of game in the Transvaal. Leaving the Itendi, I travelled to Singwitsi River. Here the game near the Portuguese border has been shot out this year by two or three parties of Boers, and there is practically none. I got a good deal of information from the natives, although they were not very clear, as

the Boers invariably camped some way from the kraals. Following up the Singwitsi, I at length arrived at a district which had not been hunted by white men for two years. Here for a stretch of fifteen miles were koodoo, tressebe, ostrich, reedbuck, waterbuck, and impala, not in any numbers, but a few troops of each. They are systematically hunted by the natives from the Levubu (or Pafuri), where hunting camps are everywhere in evidence; they use bows and poisoned arrows, though the damage they do in a year will not equal that done by a few Boers in a week; still, where game is so very scarce it should be put a stop to. Travelling further up the river, I found game again reduced to vanishing quantity. The natives said that a party of Boers from Spelonken had travelled along this part of the Singwitsi with a Scotch cart, of which I saw the spoor, and shot all the game here and on the Shishwa River, which is a tributary of the Levubu. I saw the spoor of two giraffes, however, which I was told were still alive. The Boers I refer to were, I understand, reported and punished at Pietersburg.

'*Elephants* have not crossed into the Transvaal since the war; during its progress a herd came in from Portuguese territory, and eight of them were shot by Boers on the Letaba. This was about the whole herd. There are still a few left in Portuguese territory on the Singwitsi River, but I fear we have seen the last of them in the Transvaal. Boers shot three in the first-mentioned district (*i.e.*, in Portuguese territory) about two months ago.

'*Eland* were exterminated by the Boers during the war; there are none now left, though they still exist in Portuguese territory, some two days' march from the border. There are, I fancy, no eland in the Transvaal except eight preserved on a private farm near Godwaan, on Pretoria-Delagoa Railway.

'*Rhinoceros.*—The last one was shot by the Boers during the war. The only rhinoceros left in the Transvaal Game Reserve is the one in the Sabi bush, near the Natumere River.

'*Buffalo.*—None since the rinderpest.

'*Hippo.*—There are some on the Letaba and I believe on the Levubu. Boers shot two Transvaal hippo this winter below the Letaba-Oliphants Junction. They were, however, in Portuguese territory. Unfortunately, in a dry season the hippo migrate down the rivers in search of deep pools, and so get out of reach of game laws.

'*Sable Antelope.*—There are a few on the Itendi River, and there may be some on the Singwitsi, though I have seen no spoor.

'*Roan Antelope.*—I saw no signs of this animal, except the head-skin of one killed by the Boers. Some of the natives said it was killed on the Itendi River (Transvaal), others in Portuguese territory; in fact, they did not know. They said there used to be roan, but they had seen none for a long time.

'*Koodoo.*—This fine antelope appears still, in a measure, to hold its own, and I saw a troop of seven, and two other individual

cows in different places on the Singwitsi. They only exist in the fifteen-mile stretch I mentioned, however.

'*Tressebe.*—There is a good sprinkling of tressebe, which must once have been numerous. I saw one or two small troops and their spoor in several places.

'*Blue Wildebeeste.*—There are a very few still to be found on plains between Itendi and Singwitsi and possibly on higher Letaba; north of Singwitsi the natives say they have all been killed out. I saw none myself, except the remains of one the Boers had killed.

'*Duikerbuck.*—A good sprinkling along the Singwitsi and individuals scattered elsewhere. They seem to be in a better position than any other buck as regards numbers. Boers shot about ten of them near the Portuguese border in the Transvaal this year.

'*Impala.*—A few along the Singwitsi and Letaba Rivers. They are not numerous.

'*Reedbuck* are not numerous, but exist, as I saw some on Singwitsi River.

'*Zebra.*—A few troops on Itendi and Singwitsi; not numerous.

'*Ostrich.*—I saw seven ostriches on the Singwitsi; there are probably others scattered about away from the rivers, and I fancy they are tolerably represented.

'*Giraffe.*—I saw the spoor of two on the Singwitsi which the natives say they think still live. The spoor was at least two months old, however. Smaller buck of most kinds are in existence, but nowhere at all numerous.

'I ought to mention that all information pointed to the game of the Reserve being chiefly along the Singwitsi River; the Levubu or Pafuri carries a large native population, and the fact of there being no game there is conclusively proved by the natives from thence coming down to hunt on the Singwitsi and Shishwa Rivers. On the Singwitsi, as I pointed out, the game is chiefly confined within a fifteen-mile stretch where they have not been hunted by Boers since the war.

'Owing to my provisions having quite given out, and being in fact in rather reduced straits, I was unable to go up to the junction of the two Letabas, but it is pretty certain that, as on the Singwitsi, there is a small stretch there which still carries a certain head of game. Altogether I think the Reserve is well worth protecting, though it cannot be compared for a moment, either in its amount of game or in the ease with which it can be protected, with the northern extension of the Sabi Game Reserve. I have some police boys now in the eastern district of it, and as there is no likelihood of any more Boers coming there, now that the fever season is setting in, I consider that it is not vitally important to send a white man there just at present; the native police can stop the boys killing game and report any white men.

'Next year I propose to station a white man at a kraal which is situated in a central position and is within striking distance of

both Singwitsi and Letaba. As we have no funds to provide for a fresh ranger, I shall send up a trustworthy man from here, and I fancy that the mere fact of a man being there will keep Boers off.

'I would, however, emphasise the fact that game laws and Ordinances of all kinds are so much waste paper to the Boer hunters, once out of sight of a policeman; they have no sporting instincts and no sense of honour as a rule, and know well how hard it is to secure a conviction against them for what they do far away from civilisation. This year it has been, and still more next year will be, the fashion to go on a shooting trip with wives and families into Portuguese territory, and when near the border they camp in the Transvaal, and shoot indiscriminately on both sides, declaring to anyone who comes along that they are confining themselves to the other side of the line.

'I have no fears for the general safety of the game next year; but I think it would be a good thing, and would considerably lessen the arduous work of a ranger in that large district, if some arrangement could be made with the Portuguese Government towards discouraging this annual trekking. I shall, of course, make them keep to certain roads as far as possible when passing through.

(Signed) 'J. Stevenson-Hamilton,
'*Warden, Government Game Reserves.*

'Sabi Bridge: October 13, 1903.'

GOVERNMENT GAME RESERVES—ANNUAL REPORT, 1903-1904.

'Sabi Game Reserve.—Barberton.

'*Game.*

'Game in this Reserve has made a very considerable increase during the last year. I should estimate the net increase of all four-footed game, since the inception of the Reserve two years ago, at one-third.

'*Four-footed.*

'The aggregate of the larger varieties is especially satisfactory. Four-footed game, as regards numbers, exist in the following order:

1. Impala.
2. Duiker.
3. Steinbuck.
4. Reedbuck.
5. Warthog.
6. Bushbuck.
7. Bushpig.
8. Rooi rhebuck.
9. Klipspringer.
10. Waterbuck.
11. Wildebeeste.
12. Zebra.
13. Kudu.
14. Sable antelope.
15. Sassaby.
16. Buffalo.
17. Hippopotamus.
18. Giraffe.
19. Roan antelope.
20. Rhinoceros.

'*Feathered.*

'As regards birds, the difference, now that native snaring and trapping is stopped, is nothing short of marvellous; francolin of all kinds and guinea-fowl have increased five-fold; the past season has also been advantageous in an especial degree, as the long grass has impeded the operations of the birds of prey. The wild ostriches have increased enormously, and are now seen in parts of the district where they had not been known for years.

'So far as one can judge, game birds exist in the following order:

1. Noisy francolin.
2. Bushpartridge.
3. Bushpheasant.
4. Sandgrouse (Namaqua).
5. Guinea-fowl (Blue-headed)
6. Bush khoraan.
7. Dikkop.
8. Ostrich.
9. Crested bustard.

'*Carnivora.*

'There is no perceptible increase in the number of lions found in the Reserve and a considerable decrease in wild dogs, hyænas, and jackals; civets and wild cats are trapped by the rangers and police.

'As last year, impala and, in a lesser degree, waterbuck form the principal victims of the lions. The wild dogs hunt impala almost exclusively, and this buck, with the duiker and bushbuck, is also the prey of the leopard and cheetah. In spite of these drawbacks, however, impala are increasing at a great rate.

'*Hunting.*

'(*a*) *Whites.*—I do not know of any white men having succeeded during the past year in penetrating the Reserve for shooting purposes, but a constant and vigilant surveillance is necessary, especially along the southern boundary, where the Crocodile River separates a great deal of game of all kinds from a scattered population of white men, many of whom would seize the first opportunity given them of violating the game laws.

'(*b*) *Natives.*—There have been a few minor cases of natives hunting, principally from Portuguese territory. At the present time we are trying to trace a hunting party who have been killing game in the centre of the Reserve lately (this being the most lonely part). These parties, however, are afraid to make any stay and probably, having shot one animal, leave hurriedly with the meat.

'*Prospectors and Treasure-hunters.*

'We have been lately subjected to a good deal of importunity from people insisting on going into the Reserve for various private ends—some to inspect a supposed reef, others to view alleged beacons on concessions put up or granted, according to their statements, during the period before the war, but of which there are no records.

'During the summer, Captain de Bertodano, on behalf of the

Intelligence Department, spent some months searching the Reserve for alleged buried treasure. This, having now got abroad, has created a perfect furore in the country, and parties of treasure-seekers appear almost weekly, coming from all parts of the Transvaal; they have no credentials, and each party appears to think that it alone is in possession of the secret. The game is, of course, disturbed considerably by all this kind of thing.

'LYDENBURG.

'*Game.*

'I have to report a substantial increase of game in this Reserve; again I should place the net increase at quite one-third.

'In numbers game exists as follows:—

1. Duiker.
2. Steinbuck.
3. Reedbuck.
4. Bushbuck.
5. Waterbuck.
6. Wildebeeste.
7. Impala.
8. Zebra.
9. Sable antelope.
10. Sassaby.
11. Warthog.
12. Bushpig.
13. Klipspringer.
14. Rooi rhebuck.
15. Kudu.
16. Giraffe.
17. Buffalo.
18. Hippopotamus.

'*Ostriches.*

'Birds exist much as in the Barberton section, except that the proportion of ostriches is much greater; I should estimate the number in the eastern districts as over one thousand.

'*Carnivora.*

'All carnivora are relatively less numerous than in the Barberton section. The country being more open and the game harder to catch causes them to favour this district less than that south of the Sabi. Lions are distributed throughout, as are leopards and cheetahs, but wild dogs are extremely scarce, and in the larger portion of the district do not exist at all.

'*Hunting.*

'There have been occasional depredations from Portuguese territory by natives, but they never venture far from the protection of the border, and one or two minor cases against the inhabitants of the Reserve. Trapping and snaring went on in the western portion until I placed some police there. So far, there has been no trouble with white men in the district, except the tearing down of notice-boards by some evil-disposed persons.

'*Prospecting, &c.*

'We have been a little troubled by prospectors and treasure-hunters in the south-east corner, but, so far, not elsewhere. There are police posts at the drifts on the Oliphants River, with Govern-

ment notices to show to any white man attempting to come from Leydsdorp direction. Of course, a great deal of the land being private simplifies matters, as prospectors have less opening. So far, no representative of the Companies has been down.

'Singwitsi Game Reserve.

'Major Fraser in charge, with a staff of twelve native constables.

'*Game.*

'Only sparingly distributed; there is rather more on the Singwitsi River than elsewhere. Some districts appear completely denuded not only of buck, but of all feathered game as well, presenting a vivid contrast in both these respects to the adjoining country south of the Oliphants River.

'From the tracks, I gather that all the varieties of game known in the Sabi Reserve are present, but in such limited numbers that they are seldom or never seen by the traveller, and, in fact, in a journey up of 300 miles we only saw game on two occasions.

'*Causes of Scarcity of Game in the Singwitsi Reserve.*

'The principal causes of the present low ebb of the game are—First, the method of hunting adopted by the Dutch hunters, who overran the country in the winter months until this year. Secondly, the immense destruction caused to the game by the natives living in the Reserve. This, unlike the white man's warfare against the game, goes on all the year round and is waged equally against birds and beasts. It was in full tide when I visited the Reserve, and is still going on, and can only be repressed by stern measures. During the period when the young are produced, natives will do even more destruction than white men are capable of.

'Comparing my visit to the Reserve last September to that just concluded, I am driven to the conclusion that the game has actually decreased in the period in certain places. That the policing adequately of the Reserve was put off so long was, unfortunately, unavoidable owing to the limited means at our disposal, and it would have been bad policy to have depleted the more important Reserves of the South.

'*Hunting Implements of Natives.*

'Our journey towards the north savoured of a surprise visit, and in nearly every kraal we found fresh skins, bones, in some cases meat, newly snared partridges and guinea-fowl, hunting implements, including snares of all kinds, iron traps, spears, bows and poisoned arrows, ammunition, bullet-moulds and guns. The men of the villages as a rule ran into the bush on our first approach, carrying, presumably, anything incriminating that they could lay hands on, and owing to my police not knowing the country, and being of a different tribe to the inhabitants, it was impossible to get information or effect arrests except in one or two cases.

'On our return journey we always saw the fresh tracks of a runner preceding us on the path and, as a consequence, when we arrived at a village we usually found everything apparently in perfect order.

'*Guns and Ammunition.*

'I have no doubt that among the isolated kraals scattered through the Reserve almost every native possesses a gun and ammunition; and this does not point in any way to the firearms not having been properly collected by the authorities, for the contiguity of Portuguese territory, where the natives are nearly all armed, makes the purchase of new firearms quite easy. Even in the Sabi Reserve, were it not for the presence of authority, the natives would soon re-arm themselves.

'*Destruction of Game.*

'I was impressed by the number of skins belonging to antelope calves cut from their dead mothers, which I saw in the kraals, and by the immense extent and the artistic nature of the snaring of birds and buck which went on. In one village I saw pieces of skin of a zebra, a sassaby and a waterbuck, all killed within a week or ten days.

'*White Men Passing Through.*

'The only white men who have passed through the Reserve up to date are Sardilli, a trader and ivory-hunter, and two hunting-parties of Boers *en route* to the Manitsi River, between Rhodesia and Portuguese East Africa. These latter, whose tracks I followed, shot a wildebeeste and duiker about six miles within the Reserve before crossing into Portuguese territory, but the boundary is somewhat indefinite thereabouts. There would, in fact, be little temptation for white hunters to visit the Reserve in its present condition. I consider that it will take ten years of careful nursing before a respectable head of game can be shown.

'*Points in Favour of Singwitsi Reserve.*

'This Reserve has many points in its favour. Much of it, being swampy and of an alluvial nature, is never likely to be run after by fortune-hunters; and it is so far away from the beaten tracks that the game should have a permanent refuge there in years to come against the inroads of civilisation. Owing also to there being absolutely no white inhabitants within many miles of it, its protection will be a comparatively easy and inexpensive matter once the not very difficult task of putting a curb on the native depredations is completed

'*Isolated Native Villages.*

'I would certainly advocate the removal of certain of the isolated kraals, which are nothing but hunting-camps, to the larger rivers, where there is a larger population and no game.

'*Carnivora.*

'Carnivora are very scarce in the Reserve. There are a few lions on the Singwitsi and on the Stendi Rivers; such few as there are are dangerous, from hunger, no doubt.

'*No Wild Dog.*

'There are, so far as I can ascertain, no wild dog. Leopards and cheetahs are distributed in the usual proportion.

'*Effect of Entire Disappearance of Game.*

'To show the effect of the entire destruction of game: Between the Livubu and Limpopo Rivers, outside the Reserve, all game has been completely killed off, the natives having finished what the white man left. The result is that two lions, relics of the days when the land was well stocked, now wander about the country in a starving condition, and subsist entirely on the natives' goats, lying up boldly close to the villages. No doubt, when the goats are all eaten, they will prey on the people. The natives (Knobnose tribe) are so utterly casual and indifferent that not only do they take no steps towards combining against these animals—though most of them are, no doubt, either in actual possession of guns, or in the way of easily obtaining them—but they do not even fence in their goats at night, except with just enough small branches to keep the animals from straying.

'*Chief Mhinga on Papuri River.*

'A Swiss missionary, Mr. Rosset, lives on the south-west part of the Livubu River. The neighbouring chief, Mhinga, the head of the surrounding tribe, I found to be both drunken and insolent, he and his indunas adopting a most offensive and sneering attitude when I visited him and told him what my business was. I think he ought to be put right on the subject of manners towards white men, quite apart from their being officials of the Government.

'The greater part of the Singwitsi Reserve bears the appearance of being very unhealthy, especially in the north.

'PONGOLO GAME RESERVE.

'*Game.*

'There are two or three troops of impala, a good many duikers and steinbuck, some twenty waterbuck, and seven or eight kudu in this Reserve, together with a good head of game birds, including guinea-fowl. This game migrates to and from Swaziland.

'*Carnivora.*

'There is a small troop of seven or eight wild dogs, besides jackals and wild cats, but no lions or hyænas. The wild dogs do not confine themselves to the Reserve, but hunt equally in Swaziland and across the Pongola, in Natal territory.

'Major Fraser was in charge of this Reserve with a staff of five

native constables from August 1903 to February 1904. He stopped entirely the excessive trapping and snaring which was going on.

'*Staff.*

'On his departure for the Singwitsi, a staff of two native constables was left to keep out poachers.

'*Opportunities Afforded by the Reserve.*

'This Reserve might be made into a nice game nursery or large deer park, were means available. The site of the Ranger's house is extremely healthy, standing at about 2,000 feet above the plain, and it is far removed from danger from white hunters and out of the way of the prospector and general fortune-hunter. The adjoining native population in Natal territory, is, however, very large and a constant danger.

'A certain "Moses," a Christian native, squatted in the Reserve with some women converts during the war, and he remains, at present, the only inhabitant; he is a Swaziland native. A missionary from the latter country applied for the site occupied by the ranger's dwelling to build a mission early this year, but the request was refused by Government.

'Head of carnivora actually brought to bag in Government Game Reserves from 1st July, 1903, to 30th June, 1904.

Lion	1
Leopards	5
Cheetah	1
Wild dogs	29
Hyænas	18
Jackals	51
Large cats	17
Small cats	97
Grey eagles (Laemergeier)	5
Tawny eagles	3
Hawks	no record
Crocodiles	3
Total	230

(Signed) 'J. STEVENSON-HAMILTON,
'*Warden, Government Game Reserves.*

'31st July, 1904.'

THE WILD DOG.

The wild hunting dog of Africa (*Lycaon pictus*) is, of course, well known by sight to all sportsmen who have hunted in that country ; but not being an animal offering much temptation to the hunter, and therefore being but seldom especially sought for, the sportsman and traveller passing through a district usually sees but little of him.

I am personally only acquainted with the wild dog common to the southern portions of the Continent, and only know of one species there—the genuine *Lycaon pictus*—which, judging by comparison with set-up specimens and heads of the same animal killed in British East Africa, would appear to be a considerably larger and heavier animal than the latter.

One sometimes hears the wild dog spoken of as a 'nasty mangy beast,' but at all events, so far as the parts of the country which I am acquainted with are concerned, I am not at all inclined to agree with this sweeping diatribe. Out of a considerable number I have seen killed at different times, I have never seen a coat which was not in excellent condition, the irregular patches of black, white, and khaki in some cases standing out nearly as distinctly as the markings on a tortoiseshell cat. The ears, owing to the attentions of ticks, have often a bare and scabby appearance, but so would those of any domestic dog under similar circumstances. That the natural odour of the animals is strong and unique is undeniable, but I would not say that it is offensive in any way ; it is certainly no stronger than, though different to, that of a fox, and one can sometimes wind them under certain conditions of atmosphere very much as one does the latter.

Although, partly owing to the dense bush which they affect, wild dogs are difficult to come across casually, when they are happened upon they will generally allow a man to approach within forty or fifty yards before rising from their lair, and will then stand uttering their hoarse and rather sinister growls of alarm for quite an appreciable time. They then usually make off at a loping canter for perhaps a hundred yards, when they almost invariably stop for another stare, afterwards, if not too openly pursued, retreating at a hound's jog, which the sportsman, by taking short cuts and hurrying his pace, can usually keep up with

Thus they offer plenty of opportunities to the rifle, nor does the overthrow of one or two of their number at the first onset appear to alarm them. The various troops are distinctly local in their habits. A fairly large one, at first consisting of some forty or fifty members, hunted a stretch of country fifteen miles by ten, taking it in sections in pretty regular rotation as the game kept moving before them, for some eighteen months after the inception of the Reserve, and could even be found with a fair amount of certainty at regular intervals in certain favourite spots. Persistent persecution, however, eventually caused them to leave the district, and for six months hardly any were seen, nor were any tracks visible.

Game, especially the smaller species of antelope, have perhaps no such dangerous and indefatigable enemies. Hunting in bodies of any size from one or two upwards, they will noiselessly steal, either in the cool of the evening or between grey dawn and sunrise, upon some unsuspecting herd, and an interesting sight it is to see them; the members rambling along in an apparently nonchalant way at a hound's jog, each with nose down and in perfect silence, a silence which, by the way, is never broken throughout the course of the chase. On coming on a fresh 'line' there is no increase of pace, but the leaders prick their great round ears and jump at intervals straight up and down to get if possible a view over the tops of the long grass; then, on getting up to their game, the whole pack spreads out noiselessly so as to encircle it as far as possible. When close enough, they dash forward. Away in all directions fly the terrified antelope, while their pursuers, splitting up singly or into small detachments as their fancy dictates, ruthlessly pursue the unfortunate individuals they have marked down. There is seldom any escape. Gifted with extraordinary speed and immense endurance, the wild dog is served on occasion as well by his nose, the reliability of which his broad muzzle sufficiently indicates, as by his muscular limbs; and fortunate indeed is the creature which, once having formed his quarry, can safely win out. The actual method of chase has been sufficiently described by several writers. The pack leader spurts up alongside the hunted animal, and, springing at the flanks or quarters, tears away a mouthful of flesh, then, dropping back, he is relieved by another and yet another of his companions, who repeat the performance until exhaustion and loss of blood tell their tale and bring the victim to the ground, when all rush like a pack of hounds into their fox, and he is torn to pieces and devoured in an incredibly short space of time. To show the rapidity with which they carry out the 'breaking-up' process, on one occasion the native police at a certain picquet heard a duyker cry out close by. Only pausing to get their spears from the hut, they ran to the spot, hoping to secure some of the meat for themselves, but, although between the time of the first alarm and of their reaching the spot there could not have elapsed more than three minutes, nothing whatever remained but a little blood and some pieces of

skin, while the dogs themselves had already decamped, no doubt having discovered the proximity of human beings.

The ferocity with which they pursue their prey was exemplified one evening when two dogs pulled down an impala ewe close to camp; they were at once driven off by the natives, and the ewe was still alive and trying to rise when I came up, but in the most sickening condition, both her flanks torn open, the entrails either gone or trailing on the ground, and the flesh of one quarter entirely stripped off from hock to base of tail, so that the bone showed throughout.

The reason that the wild dog is so terrible an enemy to game in general is his wasteful method of hunting (in which he approximates to, though no doubt he is far from equalling, the modes in favour among a certain class of so-called sportsmen) that is to say, one or two dogs having pulled down, for example, an impala, will eat as much as they can conveniently gorge, and will then leisurely rejoin the pack, leaving the carcase to the vultures, hyænas, and jackals; the following day probably they resume the chase and a fresh animal is slain. In this their practice is very different from, and very much more reprehensible than, that of the lion and the leopard, who return again and again to their kill, and use every precaution to prevent the meat becoming the property of the professional scavengers of the forest.

Although the larger antelope do no doubt not infrequently fall victims to these voracious creatures, it is probable that, where smaller animals such as impala, reedbuck, bushbuck, or duyker abound, they restrict themselves almost entirely to those, and leave the bigger game in great measure alone. Such, at all events, has been the case in the Sabi Reserve, where impala roam in troops large enough to supply food to all the carnivora with the minimum of effort.

It is said, possibly with some truth, though I cannot speak from personal knowledge, that a wounded wild dog is always killed by the rest of the pack; it is certainly the case that he does not make a good recovery when wounded, the heat of the blood, consequent on an exclusively meat diet, causing the injuries to mortify in a way which never occurs among herbivora.

Nevertheless they are by no means 'soft,' and will go great distances with the most desperate wounds. I never saw a wounded or injured dog running with the pack, as is the case with game, nor did I ever see one killed that had recovered from any old wound or serious injury.

As mentioned above, the morning hunt takes place usually from earliest dawn. After its successful conclusion, or on the sun beginning to get high, as the case may be, the pack, continually joined by stragglers from all directions, proceeds, uttering at intervals their rallying cry, to some convenient water. In drinking, deep pools and large rivers are, wherever possible, no doubt from a wholesome fear of crocodiles, carefully avoided. The next item is the sandy bed of a dry watercourse or bank of a river. Here, if

the hour is still early and the sun not too hot, they will lie rolling and basking, while truants keep dropping in; as the day gets hot they betake themselves to the shade of a tree or of a cool clump of reeds, where they sleep throughout the warm hours.

When the shadows begin to lengthen and the air cools, the time has arrived for another visit to the water; then after an interval follows the evening hunt, should the morning one have been a failure, and they will drink again before lying up for the night, the time for which is very uncertain, as I have sometimes heard them calling as late as 10 or 11 o'clock P.M.

They have three distinct calls, the first and best known being the peculiar and weird cry usually heard at dark and in the morning, which is the rally for the pack after a hunt; this cry is almost exactly similar to the last note of the call of the ordinary cuckoo, and is repeated eight or ten times in quick succession.

The second is the loud single wolf-like growl of warning and alarm given when the animals are suddenly disturbed, and have sprung up to gaze at the intruder; it is much louder and hoarser than that of any domestic dog, and is quite unmistakable.

Then there is the peculiar growling, probably expressive of satisfaction, which is made when breaking up a carcase; when first wounded, I have heard some dogs utter a single low yelp, but quite different to the noise made by a domestic dog when injured.

As regards breeding, the young seem to be born about the month of May, the females of the pack having previously selected some retired spot where there are old ant-bear or other holes. Here parturition takes place, and whether the young ones of different females are at first placed in separate lodgings or not is far from clear, but it is fairly certain that very shortly after birth the offspring of a good many bitches are found occupying the same burrow promiscuously mingled. While the cubs are still young the whole troop, including the mothers, appears to hunt as usual, but the latter, at all events, and probably all, lie up near or at the breeding-ground. At two or three months old the youngsters are ready to take part in the expeditions.

The wild dog prefers, and in fact invariably seems, to kill his own meat, differing essentially in this particular from the felines, which latter would appear to prefer to employ a butcher when possible; for this reason it is practically impossible to tempt him with carrion, and so traps and poison are of but little avail against him, and the rifle must be the mainstay. It is said that in some parts of the Cape Colony, an open country, where they were at one time a terrible scourge to farmers, the process of extirpation was materially assisted by laying a drag and placing at intervals small pieces of poisoned liver or other delicacy along the line; but in the Sabi country, owing perhaps to the ease with which game can be caught, nothing of the kind has so far answered against them, and there has only been one case of a wild dog being trapped.

I have never myself seen *Lycaon pictus* in a domesticated state, but there are instances of this having been attained when the cubs were caught quite young; and a gentleman of my acquaintance, Mr. William Sanderson, who has hunted in the Eastern Transvaal for more than thirty years, told me that he used to take a couple of them on his hunting trips, but could never stop them running in and tearing the fallen game, though they were tolerably amenable in other particulars. His wolf-like nature would, however, prevent the wild dog from ever making a satisfactory domestic animal; his expression, and his general appearance, are in themselves quite enough to dissipate any notion of his having anything but the very remotest connection with the 'friend of man.'

ON THE BEST MODE OF PRESERVING THE EXISTENCE OF THE LARGER MAMMALS OF AFRICA FOR FUTURE AGES.

By P. L. Sclater, Dr.Sc., F.R.S., &c.

It is, I suppose, universally admitted that, unless serious measures be taken for preserving the existence of the larger mammals still found on some parts of the earth's surface, they will all become extinct in the course of a few more generations of men, and be known to our descendants only by stuffed specimens in our museums, and by pictures and photographs in our libraries. Such has already become the case with the bison in America and with the bluebuck in Africa. Such will be the case with all the other larger mammals that require wide spaces of unenclosed land for their well-being and reproduction.

It is to endeavour to counteract the progress of this gigantic misfortune that the Society for the Preservation of the Wild Fauna of the Empire has been founded. Even if its exertions only serve to defer the evil day a little longer, a worthy deed will have been accomplished.

The efficient work that has been already performed in this direction by the institution of large Game Reserves (and game officers to guard them) in most of our African Colonies and Protectorates, must be well known to all who have studied the first volume of the Society's 'Journal.' May it go on and prosper! But it seems to me that a still larger and bolder scheme may be suggested in furtherance of the desired object, if the necessary means can be found to carry it out; and it is concerning this scheme, which I have long thought of, that I wish to offer a few remarks on the present occasion.

The five important mammals of Africa that deserve special measures to be taken for their preservation are, in my opinion, the elephant, the rhinoceros, the giraffe, the eland, and the zebra. The forms and characters of these animals are well know to us from examples living in our Zoological Gardens, but I will nevertheless say a few words on the special merits of each of them.

1. The African Elephant (*Elephas africanus*).—It is commonly believed that the African elephant, unlike its Indian brother, is savage and untamable, and cannot be used in captivity. This, however, as is known from experience at the Gardens of the Zoological Society of London and elsewhere, is a great mistake.

Since 1865 there have been African as well as Indian elephants in the Society's menagerie. Both have been treated alike, and both, it may be said, are equally intelligent and tractable. All elephants on attaining adult age are liable to fits of ill-temper and to become dangerous, but this occurs in the Indian as well as in the African species. It would be a disgrace to our age to allow such a fine and noble animal as the African elephant to perish off the face of the earth, and I place it first on the list of the more important African animals that should be protected.

It is generally allowed that the elephants used by the Carthaginians and Romans in the field of battle in former days were of the African species, and there is no reason why they should not be employed again for hard work, at any rate in a peaceful capacity, in the present day.

2. The African Rhinoceros (*Rhinoceros bicornis* and *R. simus*).—The rhinoceros, it must be allowed, is an animal that is not ever likely to be put to tasks similar to what the elephant might perform in captivity, and is, moreover, of a fierce and morose disposition. Its huge bulk, however, and grotesque shape render it one of the most remarkable of living mammals, and in the Game Reserves, at any rate, its life should be carefully protected. Some of the expense of preserving this rhinoceros from destruction might easily be recouped by capturing alive and sending to Europe some of the younger animals, which would probably fetch at least a thousand pounds in the market. So far as I know, the celebrated 'Theodore,' which arrived in the Zoological Society's Gardens in 1865 and lived there many years, was the only example of an African rhinoceros that has ever been brought alive to Europe. 'Theodore' was a long-nosed or black rhinoceros (*R. bicornis*), but a white or broad-nosed rhinoceros (*R. simus*) would be a still greater prize. It was generally supposed until lately that the white rhinoceros only occurred in South Africa, where it is now very nearly extinct, but recent information has proved that the white rhinoceros, or a very closely allied form, is also to be met with on the White Nile.*

3. The Giraffe (*Giraffa camelopardalis*).—Like the rhinoceros, the giraffe, I fear, is not likely ever to be useful to mankind as a domestic animal, so that I cannot point out any strict utilitarian grounds for its preservation. But the giraffe, nevertheless, deserves to be carefully kept in being as one of the most highly specialised and remarkable forms of mammal life that have ever existed on the earth. What a disgrace it would be to the present age if future generations were able to say that we had deliberately allowed such a remarkable animal to perish without taking all the safeguards possible for its preservation! Even if there were not ample space for it in our African Game Preserves, the giraffe, as we know from actual experience, thrives and breeds readily in captivity. For a long series of years, from 1836 to

* See Sclater, *Proc. Zool. Soc.*, 1903, vol. ii., p. 194.

1892, there was a fine herd of giraffes living in the Zoological Society's Gardens. No less than seventeen young ones were bred there during this period, and of these nearly all attained adult age.

In many of the Continental gardens giraffes have also been bred, and it was the entire stoppage of the supply of imported specimens by the Sudanese rebellion that mainly caused these most interesting experiments to come to an end. But giraffes are now again reaching the European market, and there can be little doubt that in the course of a few years they will be again found in most of the larger zoological gardens of Europe.

4. The Eland (*Taurotragus oryx*).—The eland is not only the largest and finest of the great group of African antelopes, but is one that has been shown by actual experiment to be admirably adapted for captivity. About 1842 elands were first imported alive into England for the celebrated menagerie of Edward, thirteenth Earl of Derby. At Knowsley they did exceedingly well, and calves were produced in many successive years. At the dispersal of the Derby menagerie in 1851 the two males and three females, which then represented the species, passed by bequest into the Gardens of the Zoological Society of London, and made the foundation of a herd of this magnificent antelope, which has been kept up with varying fortunes ever since.

In former days Viscount Hill had also a fine herd of elands at Hawkstone, in Shropshire; and at the present time the Duke of Bedford maintains a herd at Woburn, so that there can be no doubt of the capability of the eland to endure even a British climate, and to reproduce its species in captivity.

The eland may now be said to be extinct in the Cape Colony, but exists under slightly varying forms all along the eastern side of Africa up Mount Kenia and the White Nile.

The flesh of the eland is allowed by all who have had the privilege of tasting it to be most succulent and nutritious, so that, in case this animal could be kept in a domestic state on a large scale, a fourth meat could be added to our present restricted diet of mutton, beef, and venison. At all events, let us try the experiment, and endeavour to preserve this splendid animal for the benefit of future ages.

5. The Zebras (*Equus Burchelli*, *E. zebra*, and *E. Grevii*).—The zebra, though last on the list, is by no means the least important of the larger African mammals that call for protection against the advancing tide of civilisation. Its closely allied brethren, the horse and the ass, have been the servants of mankind for ages, and there seems to be no reason whatever why the zebra, if properly treated, should not take a place along with them in the domestic equine series. The strength and hardiness of the zebra are known to those who have met with it in its native wilds, and its beautiful and compact form are manifest to all who view the zebra in captivity. It cannot, however, be expected that wild-caught animals, or even their immediate progeny, can be easily

trained and educated for the use of man. It must take some generations of captive life before the zebra can be rendered fit for the performance of the duties of the horse and the ass. And this chance of treatment the zebra has never yet enjoyed. But there is no reason why this experiment should not be attempted. Professor Ewart has shown us what interesting results may be obtained by crossing the zebra with ponies and asses, and there is every prospect of success if the process be carried out on a larger scale.

The zebras, though now nearly extinct in the Cape Colony and adjacent countries, are found in districts suitable to their mode of life throughout the eastern side of Africa up to Somaliland. Within the limits of British East Africa both the magnificent Grévy's zebra and a representative form of Burchell's zebra are met with.

Now, it so happens, most fortunately, that there is one portion of British territory in Africa in which all the five animals above mentioned are to be found in greater or less abundance. The East African Protectorate, which covers an enormous area of undeveloped and, as it appears, sparsely peopled land, especially in its central and north-eastern parts, has great advantages for the plan which I venture to propose for the preservation of these larger mammals. On referring to the excellent map of East Africa published in the first number of this Journal, it will be observed that two large Game Reserves, coloured green and denominated the 'Sugota Reserve' and the 'Juba Land Reserve,' are conspicuous in the centre of the East African Protectorate. The southern boundary of the Juba Land Reserve is, as there shown, the River Guaso Nyiro. If to this reserve were added the adjacent district on the south, which surrounds Mount Kenia and extends down to the River Tana, it appears to me that we should have a splendid range of country for the preservation of animal life of every sort and variety. There would be the forests of Mount Kenia in which the elephant occurs, and the swamps of the Guaso Nyiro which would harbour the rhinoceros, while the more open plains of Jubaland would probably supply the zebra, the eland, and giraffe. The locality is the more convenient as being easily accessible by the Uganda Railway with its headquarters at Nairobi.

The elephant being the principal object of my scheme, the first question arises, How is the elephant to be captured in Africa? To this I reply that the only known way of capturing wild elephants is the employment of tame elephants for that purpose, as is the well-known practice in certain districts of our Indian Empire. We must ask the assistance of Lord Curzon of Kedleston for this purpose, and beg the favour of the loan (for a few years) of a Kheddah with its complete equipment of officers, trained elephants, and men. They can be easily shipped at Chittagong, or at one of the adjacent ports on the Bay of Bengal, and conveyed by steam to Mombasa, the terminus of the Uganda Railway. Thence they may be taken by railway to Nairobi, and thence marched up on foot to a convenient position on the slopes

of Mount Kenia, where permanent headquarters should be established in a carefully selected spot. Elephants are, of course, the first object, and the enclosures necessary for the purpose should be formed and the trained Indian elephants set to work to capture their African cousins.

But the other animals described above should not be lost sight of. Convenient quarters should be formed somewhere in the same district for elands and zebras, which, according to the best authorities, are often found together in the same country.

Whether the giraffe can be treated in the same way is perhaps a little doubtful, but young giraffes should be captured and a supply kept ready for exportation to Europe, where they will always fetch a liberal price. A supply of elands and zebras should also be collected for exportation. All these four animals will command large prices in the European market, varying from a hundred up to a thousand pounds.

If the scheme is well started and well managed, I do not doubt that the sale of animals for European menageries would produce, in a few years' time, a considerable revenue; and when the initial expenses have been found the Kheddah might possibly pay for its own maintenance.

It is generally understood that before long the Government of the East African Protectorate will be transferred from the Foreign to the Colonial Office. The Colonial Minister should, therefore, be approached on this subject. Mr. Lyttelton is a statesman with a wide grasp of views and great intelligence. He will, I am sure, at once perceive the importance of this matter, and agree to appropriate a sufficient portion of the revenue of the new Colony to such a worthy and important object. Should he fail in his response to this appeal (which I can hardly believe likely), we must have recourse to the liberality of the African millionaire, who could not possibly spend the proceeds of the Rand in a better or more appropriate manner than in an attempt to preserve these magnificent inhabitants of Africa for the benefit of future generations.

[We gladly welcome Mr. Sclater's interesting paper, but it should be noted that the Society are not unanimous about the expediency of capturing wild animals on a large scale, on account of the great disturbance and terror which it causes, as well as in many cases the destruction of the dams. Moreover, experience shows that wild animals captured in the adult state have short lives in captivity, even if kept in wide enclosures.—EDITOR.]

PRESERVATION OF THE FAUNA OF BRITISH EAST AFRICA FROM THE POINT OF VIEW OF A SETTLER.

By Lord Hindlip.

This is a subject on which, during the present state of transition from the Foreign Office to the Colonial Office, it is not very easy to write; because I am not sure which laws and regulations have been really put in force, and which have only been talked about.

When the settler first began to arrive, he was in many cases looked upon as an undesirable being, whose sole object was to slaughter game and break laws, and he was too often spoken of as a 'land-grabber' or something worse. In some cases he was not a desirable person by any means, but as a class he had to suffer for the shortcomings of a few. The first licence to kill game issued to a settler cost £10, and allowed him to kill so many animals a month (five a month, ten of one species a year, Royal game excluded), but did not allow him to kill as much as an official whose licence cost no more, or to protect his crops or homestead against the depredations of wild animals, large or small.

When the rush of settlers came, the local administration had no power to change the law, which became practically a dead letter, many neglecting to take out a game licence, and frequently not even a licence to carry a gun or rifle. This state of affairs was impossible, and ought never to have arisen. Lord Delamere, to whom we as settlers for many reasons owe a great debt, was the first to do more than protest against the existing regulations. His protest took the form of killing one zebra beyond the number his licence entitled him to, to test the legality of the regulation which prevented a settler killing animals damaging his crops, fences, &c. He was fined, and the magistrates' decision upheld on appeal. Almost immediately after this decision a new law came into force, allowing the settler to take out a licence to kill game other than Royal on his own land for £3, and also to kill Royal game found damaging his property; but the skin, horns, or ivory of the Royal game was to become the property of the Crown. Another law was talked about as likely to come into force—that for £10 a settler would be entitled to kill the same as an official, which is only fair and as it should be. If these last two laws have been put in force, the settler has nothing to cavil at, except that it is, perhaps, hardly likely that he would take the trouble to preserve the skin of, say, a zebra, or do very much more than advise the

nearest official of what he had killed and request him to send and remove what portion of the animal the Government might claim.

I am sure that the settler with a large holding, and the best of the small men, will be the last to wish to exterminate game; and to regard the settlers as a class as antagonistic to the preservation of game is to do them a great injustice, and is not advisable in the interest of the game itself. The settler will not kill or wound the same quantity of animals as were killed and wounded before and during the construction of the Uganda Railway. Treat the settler fairly as regards game, and the good ones will preserve it; and I hope the authorities will be down on anyone who slaughters or wantonly kills beyond his limit. The men who wish to keep game on their holdings will uphold and assist the game-ranger; and I hope all officials will do the same, and when he applies to a district for information for detection of breaches of game regulations he will get all the information that can be possibly obtained.

The present measures taken for the preservation of the fauna of East Africa are inadequate, and require immediate attention. They consist of—

1. Restrictions as to species and number of species to be killed.

2. A game-ranger with inadequate means of travelling and watching.

3. Three Game Reserves, none of which are worthy of the name.

The first Reserve, the only one which can be really spoken of as such, is the Southern or Masailand Reserve. This would be an excellent Reserve, were it one in reality, but when the following facts occur, it ceases to be one:

1. Some Wand'robo, who subsist entirely on game, hunt in a portion of it.

2. It is poached from German territory, and since the inception of the Boer settlement on the border has been visited and shot over by small parties of four or five men. One party told an official they were shooting at trees. Boers always have been fond of wasting ammunition!

3. I believe some land in the Reserve has been granted to settlers.

4. Officers on the Boundary Commission were allowed to kill a certain quantity of game. A Reserve ceases to be a sanctuary when shot in, and I fail to understand why officers performing their duty should be allowed such extraordinary latitude.

It is the principle which is objectionable, and leave to officers to shoot in a Reserve should be only granted under most exceptional circumstances, and then only leave for a most limited amount. I have heard of it being suggested that because an officer holds an appointment and a licence in one British Protectorate he should be allowed to shoot in any other he chose to visit. I believe in the case of the Boundary Commission leave was given to members to shoot under very strict regulations. I hope this was so. Private persons who have done survey work generally tell me they find very little time to shoot.

The two northern Reserves, Sugota and Jubaland, are not worth discussing. They are not watched, and traders, &c., kill what they want. Occasionally one who is careless is caught and convicted of trading in a closed district, or perhaps of killing elephants —seldom the latter.

The three-mile-wide Reserve, north of the railway, was a very good one, as it prevented to a certain extent shooting from trollies, &c. Unfortunately, it has been abolished.

To preserve the game more money must be allowed, and it is only reasonable for those interested in this question to ask that a certain proportion of the revenue derived from the presence of game in the country should be applied for the purposes of its preservation.

Personally, if a private person and a settler may offer any suggestion for the benefit of the game without being accused of doing so for his own interests, I should like to make the following proposals :—

1. Make the present Southern or Masailand Reserve a real sanctuary ; this will probably mean more money and a post or patrol on the German frontier. Perhaps the question of the Wand'robo can be dealt with.

2. Renew the Ordinance, making a Reserve along the north side of the railway line for a distance of a mile from the centre of the track. This would be from the coast to Nairobi, except on private land.

3. If the Masai are moved into a reservation on Lykipia (as I hope they will be), this tract would make a good Game Reserve, and the officer in charge of the Masai reservation could be held responsible for the protection of the game. Also make the adjacent Baringo district (now heavily shot over) into part of the new Masai Reserve, and do away with those called Sugota and Jubaland.

By this means the new Masai Reserve could be well watched without any fresh grant for the game-ranger, provided that the officer in charge of the Masai and the officer at Baringo were made responsible for the protection of game in their districts.

4. The Ordinance of December 1, 1904, which allowed female and immature ivory to be again sold to Government, should be repealed, and all female and immature male ivory should be confiscated, or the possessor should be allowed to buy his own ivory from the Crown at a price to be fixed by the game-ranger and H.M. Commissioner.

In my opinion it is not to the interest of the game that a sportsman may within ten miles of the line shoot as many of whatever species he can find, as one travelling over a large tract far from supplies, where he may have to shoot up to his limit for meat. I think that the issue of two forms of licences would meet the case :—

1. A £30 licence, enabling the holder to shoot half the numbers at present allowed by the £50 licence, within a certain distance from the line—say fifty miles or less.

2. The present £50 licence for sportsmen travelling over larger areas away from supplies, &c., enabling them to kill the same as at present; or a £60 licence, including a male buffalo, giraffe, and eland, and an extra antelope or two if the number of species in the districts traversed was limited.

But this licence should not be issued to those who only shoot from the railway. I think that as so many sportsmen shoot so close to the railway they are allowed to shoot too much and more than necessary, but if this limit were to be curtailed, the cost of their licence should be reduced.

The Regulations Lord Hindlip refers to are embodied in the following Ordinance:—

GAME.

IT is hereby enacted as follows:

This Ordinance may be cited as 'The Game Ordinance, 1904,' and shall be read as one with 'The East Africa Game Regulations, 1900,' hereinafter referred to as the principal Regulations.

2.—(1.) An occupier of land may take out a landholder's game licence for the sum of 45 rupees, and may also take out a similar licence at the same fee for any person permanently employed by him in connection with the land.

(2.) The licence shall only permit game to be hunted, killed, or captured on land in the occupation of the holder of the licence or of his employer.

(3.) The licence shall not authorise animals mentioned in the first Schedule or the females or young of animals mentioned in the second Schedule to the principal Regulations to be hunted, killed, or captured.

(4.) The licence will permit the animals mentioned in the third and fourth Schedules to the principal Regulations to be hunted, killed, or captured, and the limitation on the number of animals to be hunted, killed, or captured therein contained will not apply.

(5.) Except as otherwise provided in this section, the holder of a landholder's game licence will be subject in all respects to the provisions of the principal Regulations.

3. Where a person holding a landholder's game licence holds also a settler's licence, animals killed or captured on his own land under his landholder's licence shall not count towards the number of animals he is entitled to kill under his settler's licence.

4. The Commissioner may, in special cases, grant, at a fee of 150 rupees, a sportsman's licence to a person entitled to take out a settler's licence, but such licence shall be deemed to have been issued under the principal Regulations.

5. Not more than one fourteen-day licence shall be issued to the same public officer between the 31st March of one year and the 31st March of the next year.

6.—(1.) All licences issued under this Ordinance or under the principal Regulations shall expire on the 31st day of March next after the date of issue.

(2.) The provisions of this section shall not apply to licences now in force, nor to fourteen-day licences issued to a public officer.

(3.) The Commissioner may, on the expiration of licences now in force, issue to the holders thereof, if they desire to renew their licences, temporary licences of the same class expiring on 31st March, at such fees and with liberty to hunt, kill, or capture such number of animals mentioned in the third and fourth Schedules, as the Commissioner may think fit.

7.—(1.) Ostrich eggs, heads, horns, bones, skins, feathers, or flesh of any non-domesticated animals mentioned in the Schedules to the principal Regulations may be sold in the following cases and under the following conditions:—

(*a.*) If they form part of the estate of a deceased person, by the Administrator-General or personal representative of such deceased person, with the consent of the Court granting probate or administration, and on payment of such fee as the Court directs, not exceeding 20 rupees.

(*b.*) If they have been forfeited, by the order of the Commissioner or of the Court by which they have been declared to be forfeited.

(2.) The purchaser shall in each case be given a certificate specifying the articles and declaring that they have been lawfully sold under the provisions of this Ordinance, and such certificate shall be evidence that the purchaser has not obtained the goods in contravention of the principal Regulations.

8. Any person who is found in possession of any cow ivory, shall, unless he prove that the ivory was not obtained in breach of the principal Regulations, be guilty of an offence against this Ordinance.

9. The Commissioner may by Proclamation remove any animals from any of the Schedules to the principal Regulations. Such Proclamation may apply to the whole of the Protectorate, or to any province, district, or other area.

10. The Schedules annexed to this Ordinance shall be substituted for the third and fourth Schedules to the principal Regulations.

11. Any landholder, or his servant, finding an animal mentioned in the Schedules to the principal Regulations spoiling his crops or doing damage to his holding, may kill the same if such act is necessary for the protection of his crop or holding, but he shall give notice thereof to the collector of the district without delay, and the head, horns, tusks, and skin shall be the property of His Majesty, and shall be dealt with as the collector may direct.

12. Animals mentioned in the Schedules to the principal Regulations killed or captured by the holder of a licence under the principal Regulations upon private land, at the invitation of the occupier, shall not count towards the number of animals that person is entitled to kill under his licence.

13. No person shall be entitled to hunt, kill, or capture animals mentioned in the Schedules to the principal Regulations on private land in the occupation of another person other than his employer unless he is the holder of a licence under the principal Regulations.

14. Any person committing a breach of this Ordinance, or guilty of an offence against this Ordinance, shall be deemed to be guilty of an offence against the principal Regulations.

15. The Commissioner may by rule prescribe the forms of licences issued under the provisions of this Ordinance.

16. The following enactments are hereby repealed to the extent mentioned in the third column:

East Africa Game Regulations, 1900	No. 30 of 1900 .	Section 12. The words 'Every licence shall be in force for one year only from the date of issue.' Third Schedule. Fourth Schedule.
Game Ordinance, 1903 .	No. 4 of 1903 .	The whole Ordinance.

D. STEWART.
Commissioner.

Mombasa, August 2, 1904.

SCHEDULES.

THIRD SCHEDULE.

Animals limited numbers of which may be killed or captured under a Sportsman's or Public Officer's Licence.

Kind	Number allowed
1. Elephant (male)	2
2. Rhinoceros	2
3. Hippopotamus.	2
4. Zebras (other than the Mountain Zebra)	2
5. Antelopes and Gazelles—	
Class A—	
Oryx (Gemsbuck Calotis or Beisa)	2
Hippotragus (Sable or Roan)	2
Strepsiceros (Kudu)	2
6. Colobi and other fur Monkeys.	2
7. Aard-Varks (*Orycteropus*)	2
8. Serval	2
9. Cheetah (*Cynaelurus*)	2
10. Aard-wolf (*Proteles*)	2
11. Ostrich (male only)	2
12. Marabout	2
13. Egret	2
14. Antelopes and Gazelles —	
Class B—	
Any species other than those in Class A	10
15. Chevrotains (*Dorcatherium*)	10

Fourth Schedule.

Animals limited numbers of which may be killed or captured under a Settler's Licence.

Kind	Number of Animals allowed
1. Hippopotamus	2
2. The following Antelopes and Gazelles only—	
(i.) Grant's Gazelle . . .	5 animals in all in any calendar month, made up of animals of a single species or of several; provided, however, that not more than 10 animals altogether of any one species shall be killed during the period for which the licence is available other than Grant's Gazelle, Thomson's Gazelle, and Hartebeest (*Bubalis* and *Damaliscus*)
(ii.) Thomson's Gazelle . .	
(iii.) Hartebeest (*Bubalis* and *Damaliscus*)	
(iv.) Impala (*Aepyceros*) . .	
(v.) Reedbuck (*Cervicapra*) . .	
(vi.) Duiker (*Cephalophus*) . .	
(vii.) Klipspringer (*Oreotragus*) .	
(viii.) Steinbuck (*Rhapiceros*) . .	
(ix.) Waterbuck (*Cobus*) . .	
(x.) Wildebeest (Gnu) *Connochætes* (except the white-tailed species)	
3. Serval	2

Since the above was written and handed to the printers, I have heard of one or two cases of sportsmen shooting over private ground—I do not say purposely. Owing to the Survey Department being at present unable to cope with the work entrusted to it, many farms or stations are unsurveyed, and therefore it is impossible for the owners to fence or even stake out boundaries to show people where their land lies. I am a sufferer from this myself; and it is hard on the owner of land to be looked on as a game destroyer when game on his land is killed by strangers. Also, if any exploration or other work is carried on in the Masai-land Reserve, as is extremely probable, the Reserve and game will no doubt suffer greatly unless great care is taken.

NOTES ON THE GAME IN THE NILE PROVINCE AND IN SOUTH-WESTERN UGANDA.

Colonel Delme Radcliffe, M.V.O., late Senior Commissioner on the Anglo-German Frontier Commission, contributes the following notes on the fauna of the little-known districts through which the Commission journeyed :

Elephants, as almost everywhere else throughout the Uganda Protectorate, are common in the Nile Province. The ivory of these elephants is perhaps larger than that of any other elephants in Africa. The largest herds are seen north of the Aswa river, although one large herd crosses the Acholi country, coming from the Karamojon region, crosses the Nile just north of Lake Albert, and returns about twice a year. North of the Aswa river there is a large extent of bamboo jungle, which is a favourite haunt of the elephants. At times there may be five or six hundred collected together in this part. About Gondokoro, and north of it, enormous numbers of elephants are to be seen in the dry weather, when they come down to the Nile in search of the water which cannot be found further east.

The elephants are protected by the Game Laws, but this protection is practically only effective against Europeans. The natives will everywhere continue to slaughter elephants with spears, pitfalls, grass fires, &c., and the fact that ivory cannot be sold in the open market will not protect the elephants, as the natives really slaughter elephants chiefly for the sake of the meat. They do this on occasions in the most ruthless manner. For instance, one chief in the Acholi country described to me how his tribe had surrounded two hundred elephants with fire in the dry season, and had slaughtered the whole lot. He stated with great pride that almost every man in his village had an elephant to himself. Natives are incapable of appreciating the wastefulness of this slaughter.

If elephants are really to be preserved some effective means must be devised to protect them from the natives ; but, in addition, it appears that a modification of the Game Laws is desirable. At present two elephants only may be killed on one licence. The minimum weight of tusks is eleven pounds, and females are protected. I consider, however, that it would be better to raise the minimum weight of tusks to forty or even more pounds. This would automatically protect the female, as no mistake could then be made as to an animal being shootable on account of the size of its tusks. Again, the elephants which need not be protected are the large bulls. The old bulls when past the breeding age may well be shot ; and the minimum of two might be raised to four or six of

these old bulls, making perhaps an extra charge for each additional animal killed, or claiming a proportion of the ivory for the Government. The chief object should be to preserve the breeding bulls, females, and young ones, and to restrict the shooting to the old bulls.

In certain portions of the Protectorate the herds of elephants occasionally do great damage in the plantations, and permission has been given from time to time to the natives to kill a certain number in protection of their fields. The result has usually been that for one elephant killed and declared, probably twenty have been wounded, of which a certain number would be sure to die. Natives have no regard for size or sex, and fire bullets into the nearest animal they can reach. Of course cultivation must be protected, but in the Uganda Protectorate this should not be a very difficult thing to effect, because there is an immense abundance of natural food for the elephants; they are not driven by real necessity to feed in the cultivation, and a proper organisation should keep the herds away. If killing is to be done under official sanction, it should be by officers at the direction of the Commissioner or a responsible official.

In Toru and Western Uganda there are other very large herds of elephants which range the country between Ruwenzori, Lake Albert Edward, the Kagera River, and Lake Victoria. There seems cause to suppose that these elephants are confined to this area and do not cross into the Congo Free State region, although there seems to be no reason why the elephants should not wander up and down or across the African continent wherever food and water is sufficient. The Congo elephants, however, show some differences in comparison with the elephants east of the great line from Tanganyika, Lake Albert Edward, Lake Albert, and the Nile.

To the south-west of the southern end of Lake Albert, for instance, the elephants are described by E. S. Grogan and others to be smaller, to have a more vertical facial angle and very much straighter tusks than the elephants of the Uganda Protectorate. There is no doubt that the study of the natural history of the African elephant is very far from complete.

Next to elephants in point of size come hippopotamus. These are found everywhere where there is sufficient water within the Uganda Protectorate. In the Nile between Lake Victoria and Lake Albert, and north of Lake Albert, they are found in enormous herds, and constitute a very serious danger to navigation in small boats or canoes. They unhesitatingly attack and break up or sink any boat, without any provocation whatever. The current idea that the hippopotamus is a perfectly harmless survival of an ancient and interesting type of animal is far from the truth. They are interesting without a doubt; and were it not for their boat-destroying propensities, there would be no reason for killing them, as the damage they do is practically *nil*. The smallest fence is sufficient to keep them out of the cultivation, but as no means exist of preventing them from causing considerable loss of life by destroying boats in the navigable waterway of the Nile,

they must be cleared out. Curiously enough, in Lake Victoria they seem much less aggressive. It is true that the numbers are not large, but the great expanse of water makes it easier for them to keep out of the way of traffic.

In the Kagera River the hippopotamus are extremely dangerous, and it may be said to be a practical impossibility for a boat to go even a short distance on the river without risk of attack.

The Game Laws, so far as they affect hippopotamus, should therefore aim at keeping them out of the great navigable waterways and confining them as much as possible to the secondary streams and swamps.

After the hippopotamus, rhinoceros come next in size. In Uganda Proper they are nearly, if not quite, extinct. On the east of the Nile and in the Nile Province there are still a good number. North of the Aswa River they are still more common. They seem sufficiently protected by the Game Laws; natives do not interfere with them, they can look after themselves pretty well; they do no harm unless accidentally or intentionally approached too close, and there should be little risk of their extinction. A curious fact with reference to the rhinoceros is that south of the Kagera River they exist in extraordinary numbers, literally in places almost in herds; whereas to the north of the Kagera River not a single one is to be seen, tracked, or heard of. South of the Kagera River, they wander up and down the rocky hills with steep sides rising 3,000 feet out of the plains, on ground which appears far better suited to klipspringers or monkeys than to pachyderms.

Reports are current of the existence of the white rhinoceros in this region, and also on the left bank of the Nile opposite the Nile Province of the Uganda Protectorate. Further evidence of their existence, however, is necessary.

In the Nile Province of the Uganda Protectorate giraffes are fairly common, especially in the northern part. They are effectively protected by the existing Game Regulations against Europeans, but are still at the mercy of the natives. Really effective protection for these splendid animals is very desirable. They are absolutely harmless in every respect, and are among the most beautiful and interesting animals on the surface of the globe. They are quite defenceless, and, as the natives are very fond of their meat, they form a constant object of pursuit.

Next to the giraffes in size come elands, and similar considerations affect the protection of elands. They, too, are well protected by the Game Laws against Europeans, but, like the giraffe, are still at the mercy of the natives. They are also absolutely harmless, and there is every reason to protect them.

Apart from natural history and sporting reasons, there is cause to believe that elands may be of great economic value. The meat is equal to the very best beef—in fact, it is far better than any other meat to be procured in East Africa or the Uganda Protectorate. As each animal supplies about as much as a prize beast at home, and as they breed freely and are very tractable, there

seems every reason why an effort should be made to turn them to useful account.

In the Nile Province there are a few elands left; unless the natives can be made to spare the small remainder, there will be none.

In the neighbourhood of the Kagera River there are a few herds of elands on the British side of the river, amounting to about two hundred individuals at the present time. It seems highly desirable to protect these absolutely. At present they are being cruelly thinned out by natives on the British side, and by others from the German side, who, unfortunately, are frequently armed with rifles. If this herd could be preserved intact, in a few years' time there should be a splendid stock of elands which would spread over Ankole and Southern Uganda.

Buffaloes throughout the Uganda Protectorate were nearly exterminated by the visitation of rinderpest in the early 'nineties. They are, however, recovering with great rapidity. In the Nile Province, near Gondokoro, there are several herds of the common African type. There are similar herds on the Aswa River, and in a dense area of forest on the Jokka River. There is another herd in Magungu, on the eastern shore of Lake Albert. These herds together number now several hundred individuals.

In Southern Ankole and Buddu there are three or four herds of a very large new variety of buffalo (*Bubalis Kaffir Radcliffei*), which have their chief habitat in the dense patches of virgin forest near the left bank of the Kagera. All of these herds of buffaloes, together with many others not mentioned, are increasing in numbers with great rapidity. As they are very little molested by natives, and as they can protect themselves very well from all enemies except white men armed with rifles, there is little fear of their extermination except by some such scourge as the rinderpest. It therefore seems fair that a game licence should carry the right to secure more than one or two of the splendid trophies which buffaloes' heads are. Four or six bull buffaloes on each licence might not be too many, especially when it is remembered that the herds of buffalo live in very inaccessible forest and the opportunities for shooting them occur very rarely.

The zebras are very common in the northern part of the Nile Province, and during the dry season come down to the Nile, north of Gondokoro, in the same manner as the elephants and buffaloes.

In Southern Ankole, near the Kagera River, as well as in other parts of the Uganda Protectorate, there are also large numbers of zebras. Zebras are animals which require protection from the natives as much as any. They are very easy to kill, and in the Nile Province are speared, caught in pitfalls and trapped with the foot-rings of thorns commonly used by the Acholi and Bari natives. They are sufficiently protected against Europeans by the existing Game Regulations.

In Uganda Proper the natives do not interfere very much with the zebras, as the Baganda do not eat the meat.

There are two varieties of roan antelope within the limits

of the Uganda Protectorate. The northern variety, *Hippotragus Bakeri*, is found in the northern part of the Nile Province, though it is nowhere common. It is a very shy antelope, and sufficiently protected by the Game Laws against Europeans, though, like all the others, liable to be slaughtered by the natives. The common roan antelope is found, to a number of about fifty individuals, on the left bank of the Kagera, in Southern Ankole, and it appears desirable that this small number should be absolutely protected to avoid extinction. This antelope is very common in Karagwe, on the right bank of the Kagera; though, as the Kagera is an impassable obstacle to a rhinoceros, it is probably equally so to the roan antelope, so that it is doubtful if the numbers would be naturally kept up by the antelopes wandering into Ankole from the areas further south. Jackson's hartebeeste is common in the Uganda, where the nature of the country admits of any open country antelopes finding a habitat. They are very numerous throughout the Nile Province, but are replaced by Damaliscus hartebeeste at a point about eight miles north of Gondokoro. The only hartebeeste in Southern Ankole is also the Damaliscus, there being no Jackson's hartebeeste whatever in this area.

Kobus Defassa is the common variety of waterbuck throughout the Nile Province and in Western Uganda. This variety is distinguished, especially in the neighbourhood of Lake Albert Edward and Semliki, by very red colouring on the head and neck, and very large horns.

Almost the commonest antelope in the Nile Province is the *Kobus Thomasi*, a remarkably handsome antelope, which is found everywhere on the open grassy plains. This antelope gives way to the *Kobus Leucotis* with the same extraordinary abruptness which marks the transition from the Jackson's hartebeeste to the Damaliscus hartebeeste, and at the same point, about eight miles north of Gondokoro. As the Leucotis and the Thomasi are almost of identical build and habits, there seems reason to believe that these two varieties interbreed at the point where their respective areas meet. Individuals were seen in the valley which forms the meeting-place between the two varieties, whose appearance seemed to confirm this suggestion. These antelopes are sufficiently protected, except against natives, by the existing Regulations.

In Southern Ankole there are no *Kobus Thomasi*, and their place may be said to be taken by the Mpalla (*Æpyceros Melampus*), of which antelope there are a considerable number in the uninhabited portion of Bukanga, on the left bank of the Kagera. There are perhaps 1,500 individuals of this species at the present time in this district.

In Central Uganda and along the shores of Lake Victoria the extremely interesting *Tragelephas Spekei* is found. This antelope is hardly ever seen by sportsmen, owing to its nocturnal and swamp-loving habits. It is practically amphibious, and scarcely ever leaves the dense cover afforded by the reeds and long grasses of the swamps. Its food is almost entirely the creeping plants, convolvuli and fine herbs, found in the swamps. It is, however,

much hunted by natives with packs of dogs, and there is little doubt that large numbers of them are destroyed in this way. The natives eat the meat and make trumpets out of the horns. There is reason to suppose that more than one variety of this very interesting species is to be found in the Uganda Protectorate. The number of individual specimens hitherto brought home does not admit of the fact being definitely established.

Reedbuck are fairly common in the Nile Province and very numerous in Southern Uganda and Ankole. They are rarely found more than one or two at a time, though they are plentifully scattered over the plains on the left bank of the Kagera.

Bushbuck are really scarce both in the Nile Province and in Uganda, though no doubt their habits cause them to appear really rarer than they actually are. Harnessed antelope, on the other hand, are pretty common in the Nile Province, and can generally be found where bush with open spaces in the neighbourhood of water give them the protection and feeding they require.

A very common little antelope both in the Nile Province and throughout Ankole is the oribi. They are found practically everywhere in grassy and thorny country. In the Nile Province there is another tiny antelope, *Nanotragus Hemprichii*, not much larger than a hare. This little beast is not so common as the oribi, and is rarely shot. In Ankole and Karagwe klipspringers are common wherever the ground suits them. The species in this part show some differences when compared with the klipspringers of other parts of Africa, and may prove to be an intermediate variety. They are very sporting little animals, and a day after them with a rook rifle is the nearest approach to hill stalking that one may get within the limits of the Uganda Protectorate.

Animals of prey are common in proportion to the amount of game upon which they are dependent for food. There are large numbers of lions throughout the Nile Province, and also in Southern Ankole, where the big herds of elands, zebra, damaliscus, roan, and impalla give them plenty of food. Leopards are also common, though very much less frequently seen than the lions. They live principally on the small antelope, monkeys, guinea-fowl, &c., but they take toll of the natives' goats and thus become sometimes a great nuisance. At Mumela Camp, for instance, where the Anglo-German Boundary Commission had a temporary headquarters in 1903, a leopard took goats from one hut or other almost every night for a month. The natives begged the Europeans to kill him, and three officers turned out to do so. He was tracked into a piece of grass, but before being finally despatched, he wounded more or less seriously no less than thirteen men.

The lions both in the Nile and near the Kagera take to man-eating occasionally. Many instances in both districts were brought to notice. One lion, for instance, between Nimule and Gondokoro killed nine people in ten days.

The lions in Bukanga have an extremely bad reputation among the natives, and, judging from the number of casualties, this fear

appears to be justified. The officers of the British Boundary Commission had experience on more than one occasion of unusual and unprovoked truculence on the part of the lions.

Cheetahs do not apparently exist to the west of the Mau Plateau.

Hyænas can scarcely be called sporting animals, but may be referred to as they are occasionally seen, though they are not common either in the Nile Province or South-Western Uganda. Wild dogs (*Lycaon pictus*) are sometimes found in the Nile Province. They are extremely interesting animals, though it is perhaps fortunate they are not more common, for the destruction they cause to game is immense. They undoubtedly exist in South-Western Ankole. One individual was seen during the work of the Anglo-German Boundary Commission.

In a general sense, referring to the Game Regulations and the probability of their effecting the purpose to which they are framed, it may be said that on the whole, with slight modifications such as have been suggested above, they are very satisfactory, so far as protecting the game from Europeans is concerned. The protection, however, as has been repeatedly stated, is not so effective against the natives. It must be remembered that before the advent of the British Government in Africa, the natives themselves to a certain extent protected the game by parcelling out the whole country into beats, so that each beat was the reserve for a particular tribe or village. Any encroachment by neighbours on the reserves meant bloodshed. Hunting expeditions also usually had to be organised on a somewhat large scale, as a hunting party unless sufficiently numerous and well armed ran the risk of being attacked on the way home and having all its game taken away from it. Again, various tribes never pursued the game at all, as, for instance, the Masai. This, of course, acted as a most effective protection in the area which the Masai reserved for themselves. Now, however, all this is changed. The Pax Britannica is so complete that fighting is not permitted anywhere. The result is that the native limitations are no longer observed, and hunting can go on unchecked anywhere. The effect is very striking in the Masai plains in East Africa. Ten years ago any Mkamba (a tribe of extremely keen hunters with spears and bows and poisoned arrows) would have had a Masai spear through him for a certainty if he had come two miles down from his own hills. Now, however, all the Masai plains are swarming with Mkambe hunters, and the slaughter they occasion amongst the game must be seen to be believed. It seems therefore only fair, as the British rule protects life and property amongst the natives, protects their cattle and affords everyone equal facilities for growing their crops and maintaining themselves, that some restraint should be enforced on the natives in order to protect the game. It is of course extremely difficult to interfere with instinctive and natural habits which are in the ordinary nature of life to the natives, but it is much to be feared that unless some effectual protection is afforded the only effect of the Game Regulations will be to retard for a short time the final disappearance of all the game in Africa.

The following extract from the *Field* of February 11, 1905, on Game Protection in Cape Colony is of interest:

'GAME PROTECTION IN CAPE COLONY.

'It is characteristic of the English race that many projects of far-reaching public utility that in any other country would be directed by the State alone are preferably left to private initiative and enterprise, and such is the self-reliance and sense of responsibility which this policy has cultivated in the individual that much of the work thus undertaken is more efficiently performed than it would be by any Government officials. The conservation of the larger and more useful fauna of our South African possessions has thus been assumed so far as a large part of Cape Colony is concerned, by the Western Districts' Game and Trout Protection Association, and the necessity for the activity of some influential body in this direction is apparent when we consider the alarming diminution of many of these wild animals, amounting in at least one case to total extinction.

'During the past year the close seasons which the Cape Government instituted in consultation with the association have been maintained in their integrity, although in a few cases local authorities have pressed for a revision. The principle upon which these were determined was that of grouping various districts together according to the breeding seasons of the animals existing there, and this arrangement has been found to work so well that it is not thought desirable to depart from it. The dates vary somewhat with the different localities, but on the whole the association is satisfied that at present nothing is to be gained by any alteration. A special permit to shoot any of the protected varieties of big game must be obtained from the Government, in addition to the ordinary game licence, and application must be made to the Under-Secretary for Agriculture through the resident magistrate of the division in which the game is to be found. The large tract of country in Bushmanland division of Namaqualand is still maintained as a game preserve, within which the pursuit of any species of game whatever is prohibited.

'The approximate enumeration of the varieties of big game existing in the different districts was revised in 1904, and these estimates are regarded as affording such useful and necessary information that the Government has determined that in future greater efforts to ensure their accuracy shall be made. The census

shows that in most cases the numerical strength of the various herds has been fairly well maintained, while a few have diminished and others have increased. The blesbok in the Steynsburg district now number 650, or 200 more than in the previous year. Bontebok show a slight increase, but the buffaloes have been reduced by some 200, in spite of special protection, and it is estimated that 500 only remain, while the elephants have just held their own, their number being about 390. Gemsbok have been reduced to 2,000, or 500 less than last year. Koodoo are holding their own, about 5,500 being reported in the various districts. Oribe are not numerous, a few only existing in two of the divisions. The numbers of rietbok are stationary, about 240 being accounted for. Zebras are slightly more numerous, the total reaching about 400. Springbok are migratory, and it is therefore difficult to estimate their numbers, but various small herds exist. The number of hartebeest is given as 7,000, an increase of 1,000 during the year; and wild ostriches are returned as 6,000, against 4,000 in 1903. Eland are represented by a herd of ten, preserved in private hands in the Graaff-Reinet division. Wildebeest are fairly numerous in Bechuanaland and Griqualand West, but as they frequently shift their quarters in search of food their numbers cannot be estimated with any accuracy.

'Various rewards are still offered for the destruction of certain wild carnivora and other injurious animals. During the year ended June 30, 1904, over £18,000 was disbursed on this account for lynxes, jackals of different kinds, and baboons, the scale being 3*s.* 6*d.* for a lynx, 10*s.* for a jackal, and 1*s.* 3*d.* for a baboon. Efforts have been made by the association to introduce and acclimatise the wild jungle-fowl of Northern India, but, so far, the attempts made to get some of the birds imported through an official in the Forest Department of the Indian Government have not been successful, although it is expected that a consignment will be received in course of time.'

We publish an extract from a letter written by a member of the Society who has recently returned from the districts north of Victoria Falls:

'The recent arrival of the railway at the Victoria Falls of the Zambesi, and more especially its immediate advance to the North, probably to the Kaful River, has thrown open a fine game country, hitherto most difficult of access, which many sportsmen have already taken full advantage of, and without doubt very many more will immediately follow in annually increasing numbers. As a natural consequence game must get rapidly scarcer, in spite of all game regulations, which, by the way, are far easier to formulate than to enforce. The only really efficient plan is the establishment of absolute game sanctuaries within which no game of any kind may be shot. The Chartered Company have, I believe, two Game Reserves north of Matabeleland—namely, one between the Chobe and Zambesi Rivers, and another

around Lake Mweru. The Zambesi-Chobe preserve is an excellent district in itself, except that it has the grave defect of being largely in German territory. However amicably such an arrangement may work at present, an agreement of this kind must of necessity be liable to alteration ; and it seems highly undesirable to leave this as the only real sanctuary for the numerous superb antelopes which are practically confined to Northern Rhodesia: at all events, they are now only found in any fair numbers, side by side, in that extensive country. A most suitable area to rope off would be, say, all the country in British territory north of 10° latitude, and between, say, 29° and 31° longitude. Should this be considered excessive, perhaps the country north of 9° latitude with the same above longitude, might be sufficient, the larger area to apply to elephants and the latter to all game. The district here named includes, certainly, buffaloes, though sadly thinned since the rinderpest, puku, lechwe, roan antelope, Lichtenstein hartebeest, sable antelope (said to carry the finest of horns in these parts), and probably elands, possibly a few hoodoo, besides the usual sprinkling of pig and smaller buck. Before the rinderpest in 1893 the above district probably contained more game of all sorts than any other in Africa —a strong statement, no doubt, but one I make advisedly. Should anyone wish to test it, he will find sufficient corroboration in the remarkable article contributed by Mr. Alfred Sharpe (as he then was) to the *Geographical Journal*, shortly after traversing the country in 1890, on a visit to Msidi's town in the Garenganze country. This would prove that the district is by nature eminently suited to keeping up a large head of game, and moreover is probably but very thinly populated. A short Ordinance issued by the Chartered Company on behalf of game in these regions would indeed be welcomed by all lovers of sport and zoology.'

CORRESPONDENCE WITH BRITISH SOUTH AFRICA COMPANY.

The Secretary of the B.S.A. Company, in answer to queries on the subject of Game Regulations in Rhodesia, has been good enough to supply a quantity of valuable information which is summarised below.

'2 Temple Gardens: Jan. 16, 1905.

'Dear Sir,—I should be very much obliged if you would let me know whether your game regulations are now in force over the whole of Rhodesia.

'Could I have a copy of them?

'Have any Game Reserves been constituted besides the Mweru Reserve, and are any animals other than elephants protected in the Mweru Reserve?

'If there are other Reserves, I should be most grateful for any information concerning them which I could publish in the next number of the *Journal* of the Society for the Preservation of the Fauna of the Empire and mark on the map, which we propose to publish, showing the South African Game Reserves.

'The Transvaal Administration have recognised that the game is a valuable asset, and have three Game Reserves and appointed an excellent staff of game-wardens.

'Any information as to proposed further reserves would be most interesting, also as to the numbers of animals killed within the last twelve months, and as to the increase or decrease of any species on the lines of the reports of the different African Protectorates.

'Yours truly,
'Rhys Williams.'

Extract from Fort Jameson Office Mail Letter.

'Fort Jameson, March 29, 1905. Received, May 13, 1905.

'PRESERVATION OF BIG GAME.

'In reply to your letter, Miscellaneous No. A 226 of February 4, 1905, I am directed to inform you for the information of Mr. Rhys Williams that all animals within the Mweru Marsh Reserve are protected and that the protection is entirely effective.

'A Game Reserve known as the Luangwa Game Reserve was proclaimed by the Administrator on December 31, 1904, for the

protection of the giraffe which are only found in that part of North-Eastern Rhodesia, but all animals in the Reserve are protected.

'No record of numbers of game killed is kept, and the Administrator does not propose to institute such a record, which could be of no value, as the small number killed by Europeans, even if accurately reported, is nothing compared to the number killed by natives.

'The slaughter of game by natives is to a great extent controlled by the existing laws regarding the importation and possession of arms and ammunition; but large numbers are killed with spears and in traps, and in view of the enormous herds of game ravaging native gardens, the Administrator does not propose at present to enforce strictly the game law so far as natives are concerned, except within the Mweru and Luangwa Reserves.

'The increasing number of natives killed by lions and the spreading of the tsetse fly areas are undoubtedly connected with the increase of game throughout the country, and the Administrator is of opinion that the general protection of game in this country is complete, and that it would be unwise to enforce any of the regulations in a more stringent manner except as regards the elephant and hippopotamus, which have recently received further protection by a rule limiting the number of elephant to be killed under a special licence in any one year to three males, and by reserving certain small rivers and pools as sanctuaries for the hippopotamus.'

Game regulations were first put in force in Rhodesia in 1899, when Ordinance No. 6 of 1899 was published. This Ordinance applied only to Southern Rhodesia. These regulations were amended from time to time and also by a further Ordinance in 1903.

GAME ORDINANCES OF RHODESIA.

Game is under these Ordinances, as amended, divided into three classes :—

1st. Class A. Birds and antelopes not included in Class B or among Royal game. These may be shot by persons holding a £1 licence.

2nd. Class B. Hartebeeste (Rooi and Lichtenstein), bontebok, blesbok, gemsbok, impala, rhinoceros (black), roan, sable, tsessebe, sitatunga, waterbuck, wildebeeste, lechwe, klipspringer and pookoo.

These may be shot by persons holding a £25 licence.

3rd. Royal Game. Elephant, hippopotamus, eland, koodoo, zebra, white rhinoceros, giraffe, and ostrich.

The Administration has no power to grant permission for these animals to be hunted, pursued, or captured unless they are required *bona fide* for scientific or farming purposes. Persons found pursuing animals in Class I. without a licence are liable to a fine not exceeding £5, and if found pursuing animals in Classes II. and III. are liable to a fine not exceeding £100 for the first offence or £200 for any subsequent offence or twelve months' imprisonment.

From November 1 to March 31 is a close time for all game in Matabeleland, and from October 1 to March 31 in Mashonaland.

RESERVES.

At the present time there are three districts reserved for game in the B.S.A. Company's territory, two permanently reserved—*i.e.*, the Mweru Marsh Reserve (proclaimed in December 1900) and the Luangwa Reserve (proclaimed December 31, 1904)—and an area reserved for a period of five years from February 20, 1903, in the Urungwe district. All animals are protected in these Reserves. The boundaries of the Mweru Marsh Reserve are defined in the following Government notice dated February 15, 1901:—

'Whereas under the provisions of "The Game Regulations, 1900," the Administrator has power to extend or restrict the limits of any Game Reserve, it is hereby notified that the boundaries of the Mweru Marsh Game Reserve are amended as follows:—

'Boundaries of the Mweru Marsh Game Reserve.

'Starting on the north bank of the Kalungwisi River at the mouth of the Lintomvu River, the boundary follows the Lintomvu River northwards to its source; thence in a straight line to the source of the Katete River, and thence follows the Katete River northwards to the Kaulongombe Bridge, where the Chienji-Choma Road crosses the Katete River; thence the boundary follows a line drawn due north to the boundary of the Congo Free State; thence the boundary follows the boundary of the Congo Free State eastwards to the Chisyela River; thence the boundary follows the Chisyela River southwards to Mkula's village; thence the boundary follows a line drawn in a southerly direction to Abdullah-bin-Suliman's village; thence the boundary follows the Abercorn-Kalungwisi road in a westerly direction, through Nsama's village to the Kalumba watercourse; thence the boundary follows the footpath to the Msoro Ford on the Kalungwisi River; thence the boundary follows the Kalungwisi River westwards to the point of starting.

(Signed) 'ROBERT CODRINGTON,
'Administrator.

'Administrator's Office, Port Jameson,
North-Eastern Rhodesia, February 15, 1901.'

The Luangwa Reserve was constituted on December 31, 1904, as follows :—

'THE BRITISH SOUTH AFRICA COMPANY.

'*Administration of North-Eastern Rhodesia.*

'Fort Jameson, December 31, 1904.

'PROCLAMATION.

(UNDER SECTION 4 OF "THE GAME REGULATIONS, 1902.")

"Whereas pursuant to Section 4 of "The Game Regulations, 1902," the Administrator may, by proclamation, declare any portion of North-Eastern Rhodesia to be a Game Reserve;

'I hereby declare the following area to be a Game Reserve in accordance with the provisions of the said Regulations :—

'THE LUANGWA RESERVE.

'"Commencing at the point where the Lusangazi River flows into the Luangwa River, the boundaries shall follow the course of the Luangwa River down stream to the point where the Msanzara River flows into the Luangwa River, thence following the course of the Msanzara River up stream to the point where the said river crosses the Fort Jameson-Petauke road, thence following the said road in a north-easterly direction to where the said road crosses the Lusangazi River and thence following the course of that river down stream to the point of commencement."

'ROBERT CODRINGTON,
'*Administrator.*'

The temporary Reserve in the Urungwe district was proclaimed by Government notice published February 20, 1903, as under :—

'GOVERNMENT NOTICES IN THE TERMS OF THE GAME LAWS, 1899.

'No. 51, 1903. February 19, 1903.

'Published February 20, 1903.

'Under and by virtue of the powers vested in me by Section 3, Sub-section (2) of "The Game Preservation Ordinance, 1899," I do hereby declare that the undermentioned area shall be reserved for the protection of all game therein for *a period of five years from this date.*

'An area in the Urungwe sub-district of the district of Lomagundi, in the Province of Mashonaland, bounded as follows :—

'On the north and west by the river Zambesi, starting at the point where the Lozenzi River joins the Zambesi, and following the course of the latter river to its junction with the Sanyati River.

'On the east by an imaginary line drawn from the junction of the Indurume and Nyaodsa Rivers to the headwaters of the

Lozenzi River, and thence along the course of the Lozenzi River to its junction with the Zambesi River.

'On the south by an imaginary line drawn due west from the point of junction of the Indurume and Nyaodsa to the Sanyati River, thence along the course of this river to where it enters the Zambesi.'

NORTH-EASTERN RHODESIA.

Game regulations for North-Eastern Rhodesia were put in force by order dated December 1, 1900, and amended by orders dated August 1, 1902, and by Government Notice No. 6, 1903.

'Animals are in this district divided into four series :–

'SCHEDULE I.

'*Animals to be hunted, killed, or captured only under an "Administrator's Licence."*

'(Series A.)—On account of their usefulness : 1. Vultures. 2. The Secretary-bird. 3. Owls. 4. Rhinoceros-birds or Beef-eaters (*Buphaga*).

'(Series B.)—On account of their rarity and threatened extermination : 1. The giraffe. 2. The gorilla. 3. The chimpanzee. 4. The mountain zebra. 5. Wild asses. 6. The white-tailed gnu (*Connochœtes gnu*). 7. The little Liberian hippopotamus.

'SCHEDULE II.

'*Animals to be hunted, killed, or captured only under a "Special Licence."*

'1. The elephant. 2. The rhinoceros. 3. The wildbeeste gnu (except white-tailed species). 4. Zebras of the species not referred to in Schedule I. 5. Eland.

'SCHEDULE III.

'*Animals to be hunted, killed, or captured under an "Ordinary Game Licence."*

'1. The hippopotamus. 2. The wart-hog. 3. The bush-pig. 4. Any antelopes and gazelles not named in Schedules I. or II. 5. Ibex. 6. Chevrotains, sable or roan, kudu, buffaloes, puku, lechwe, inyala.

'SCHEDULE IV.

'1. The lion. 2. Leopard. 3. Hyænas. 4. The hunting dog (*Lycaon pictus*). 5. The otter (*Lutra*). 6. Baboons (*Cynocephalus*) and other harmful monkeys. 7. Large birds of prey, except vultures, the secretary-bird, and owls. 8. Crocodiles. 9. Poisonous snakes. 10. Pythons.'

These regulations reserve power to the Administrator to vary the Schedules, to notify any tract of land as a Game Reserve, and any season as a close season in respect of any animal in Schedules I., II., or III. They also contain the following important sections :—

'11. *Immature Elephants.*—If any person is found in possession of any elephant-tusks weighing less than 11 lbs. or of any ivory being in the opinion of the Court part of an elephant's tusk which would have weighed less than 11 lbs., he shall be guilty of an offence against these Regulations, and the tusk or ivory shall be forfeited, unless he proves that the tusk was not obtained in breach of these Regulations.'

'15. *Traps.*—No person shall make or use any pitfall, snare, trap, or engine for the purpose of killing or capturing any of the animals mentioned in Schedules I., II., or III.'

'26. *Natives Not to be Given Guns to Kill Game.*—No person shall employ a native to hunt, kill, or capture any game. A licence-holder, however, when hunting animals may employ natives to assist him, but such natives shall not use firearms.'

'27. *Natives Dependent on Flesh of Wild Animals for Food.*—When the members of any native tribe or the native inhabitants of any village appear to be dependent on the flesh of wild animals for their subsistence, the Magistrate of the District may, with the approval of the Administrator, by order in writing, authorise the tribesmen or inhabitants, as the case may be, to kill animals within such area and subject to such conditions as may be prescribed by the order.'

BECHUANALAND.

In Bechuanaland the game regulations are embodied in a Proclamation No. 22 of 1904, dated September 21, 1904. From October 1 to the end of February no large game may be hunted.

Hippopotamus, rhinoceros, buffalo, zebra, quagga, and all animals of the antelope species except the rhebuck, klipspringer, duiker, and steinbuck, are defined as large game. These may be hunted in the open season upon payment of £20 for the full season, or of less amounts for shorter periods. Elephant, giraffe, and eland may not be hunted without a permit issued by the Resident Commissioner with the authority of the High Commissioner. Fines not exceeding £150 are incurred upon breach of these regulations.

The Resident Commissioner has power to issue permits without charge to any official of the Bechuanaland Protectorate service, and to any member of the Bechuanaland Protectorate Police, authorising them to hunt large game subject to such limitation as he may prescribe.

The Resident Commissioner also has power to issue permits, without charge, to persons travelling on journeys on ordinary roads, to kill large game in reasonable amount for food within a distance of one mile from such road, except in the close season.

This Proclamation, however, does not apply to any member of a native tribe who shall, with the permission of the paramount chief of such tribe, kill large game, elephants, giraffes, or eland, within the territory lawfully hunted by such tribe.

EXTRACTS FROM REPORTS.

The following are extracts from the reports of the various African Protectorates dealing with the question of game and its preservation.

SOUDAN

RETURN OF GAME KILLED IN THE SOUDAN FOR THE YEARS 1901–4.

—	1900–1	1901–2	1902–3	1903–4
Elephant	30	18	23	29
Buffalo	34	37	49	48
Hartebeest (*Bubalis*)	—	—	—	—
Tiang (*Damaliscus*)	83	123	132	119
Waterbuck (*Cobus defassa*)	78	95	126	110
Mrs. Gray's waterbuck (*C. Maria*)	16	14	8	14
White-eared cob (*C. leucotis*)	78	95	94	92
Uganda cob (*C. Thomasi*)	6	1	2	—
Roan antelope (*Hippotragus*)	39	71	52	67
Oryx leucoryx	2	9	10	13
Oryx beisa	—	—	—	1
Addax	—	—	—	1
Kudu (*Strepsiceros*)	1	13	22	8
Reedbuck (*Cervicapra*)	22	63	47	91
Bushbuck (*Tragelaphus*)	31	27	26	54
Speke's antelope (*Limnotragus*)	—	—	—	—
Addra gazelle (*Gazella ruficollis*)	—	12	11	22
Ariel (*G. Sœmmeringi*)	74	135	46	178
Other gazelles	139	335	182	442
Duiker (*Cephalophus*)	8	8	4	13
Dik dik (*Madoqua*)	—	14	5	45
Klipspringer (*Oreotragus*)	—	2	—	—
Oribi	43	76	85	206
Ibex (*Capra*)	5	4	23	6
Wild sheep (*Ovis*)	—	—	—	3
Hippopotamus	19	37	29	29
Warthog (*Phacochœrus*)	15	33	22	73
Wild boar (*Sus*)	2	2	—	1
Lion	23	25	12	23
Leopard	7	9	1	6
Cheetah	2	—	2	2
Ostrich	2	—	2	3
Rhinoceros	4	1	1	—
Giraffe	4	1	—	1
Eland	—	2	—	3
Wild ass	2	1	—	3
Hartebeest (*Tora*)	42	71	20	37
Hartebeest (Jackson's)			29	49
Wild dog	—	—	1	3
Total	842	1,340	1,072	1,792

APPENDIX 'A.'

Statistics of Game Killed under Licence, 1903–4.

Notes. 'Tiang' includes 4 or 5 of the Western species *Damaliscus korrigum*.

'Other gazelle' include *Gazella Dorcas*, *G. Isabella*, *G. Ptilonura* and *G. Rufifrons*.

Of the total of 1,798, head-officers, officials, and residents killed 1,384, and visitors 414.

(Signed) A. L. Butler,
Director, Game Preservation Dept.

'30. Preservation of Game.

'I explained in my last annual Report (p. 92) that a new Game Ordinance for the Soudan had been issued in December 1902. This Ordinance provided for the formation—

'1. Of a sanctuary, in which no one would be allowed to shoot, save officials actually stationed within its limits;

'2. Of a second, and less absolute, sanctuary, in which only Soudan officials would be allowed to shoot. Outside these two sanctuaries all sportsmen were to be allowed to shoot.

'The inviolability of the first sanctuary appears to have been well preserved. Only two cases of infringement occurred. A mining party killed one kudu and five oribi before the information that the area was totally protected had reached them. During Colonel Gorringe's expedition against Ibrahim Wad Mahmoud, it was unavoidable that permission should be given to his party to shoot in order to obtain food. They killed two kudu, five roan antelopes, and a hartebeeste. On the other hand, I regret to report that considerable quantities of game were killed within the sanctuary by natives resident on the Abyssinian frontier. In spite of every effort, it is very difficult to make them desist from this practice.

'Fears were at one time expressed that the sanctuary would prove of but slight utility, as it contained little or no game. These fears have proved groundless. The Governor of the Upper Nile Province writes:—

'"There is more game in the sanctuary than we at first supposed, and the fears we originally expressed here, that an area had been protected which was very scantily stocked with game, have happily to some extent proved groundless."

'The number of head of game killed last year was 1,798, of which 414 by visitors and 1,384 by Soudan officials, as compared to 1,072 in 1903, of which 175 by visitors and 997 by Soudan officials.* Mr. Butler reports that "game throughout the country

* 'Considerations of space prevent me from giving the details, but they can be furnished, on application, to any Associations or individuals who are specially interested in this subject. Mr. Butler thinks that the figures for 1904 include at least 95 per cent. of all the larger animals killed, and 80 per cent. of the

seems to be holding its own as yet." I do not doubt that this statement is quite correct. At the same time, the figures for 1904 show a considerable increase in the number of animals killed over those of 1903. The matter requires careful watching.

'As regards the protection afforded to certain animals, a few cases of infringement of the law took place. They were, however, not deliberate, but due to mistakes, which caused much annoyance to the sportsmen who made them.

'The Regulations as regards natives, which are very fair and easily understood, appear to have worked satisfactorily, but I should add that, in many parts of the country, no attempt is as yet made to enforce them.'

ariel and gazelle. These latter have been much more carefully recorded than heretofore.

'The Returns do not show to what extent the game was killed in the reserve kept for Soudan officials, and to what extent in the districts which are open to all sportsmen. I have asked that, if possible, this information should be furnished in future years.'

EAST AFRICAN PROTECTORATE.

Game.

'186. A notable feature of the year has been the satisfactory increase in the number of some of the rarer species of game, notably buffalo and eland. It may be remembered that buffalo suffered very severely from the great plague of rinderpest which devastated this country some years ago. Since that time they are no longer to be found on the open plains, but have retired to thick bush country—a change of habitat which makes very largely for their preservation. Eland appear not only to have increased in number, but also to be returning more to the open plains. They are especially numerous round Baringo and Voi, and fairly so on the Athi Plains, in the Kitui District, and along the edges of the Taru Desert. Eland are in no danger of dying out in this country provided that the South African practice of riding down game is not resorted to. Even then the best eland country between Voi and Makindu would not be affected, owing to the presence of tsetse fly, which would be fatal to horses.

'187. The Athi Plains, formerly the favourite hunting-ground, have not been visited so much by sportsmen during the year under review, and consequently there has been a satisfactory increase in the number of some of the species which frequent them, notably Grant's gazelle. Since the completion of the Uganda Railway and the consequent withdrawal of large gangs of workmen, game has become tamer in the vicinity of the railway and, if possible, more numerous, and the traveller can still enjoy a spectacle which is absolutely unique.

'188. There has been a considerable decrease in the number of lions killed during the year under review, due partly to the withdrawal of a reward offered by the railway authorities for lions killed in the mile zone, and partly to the breaking up of construction camps. Lions are very numerous, especially on the Athi Plains and in the Nakuru districts, but as there have been no signs of late of any acquiring a taste for human flesh or for livestock there is no reason to regret their number. Of what may be termed vermin, jackals are very numerous and destructive, not only to the young of game and of livestock, but, strangely enough, to young fruit-trees. Another very destructive animal, the wild hunting dog, is luckily not found in large numbers.

'189. On the whole the working of the Game Reserves seems to be satisfactory, and no particular species of game can be said to be in danger of extirpation. Some districts are becoming more denuded of game than others; the diminution in the Rift Valley in particular within the last few years is most marked, and if it is eventually cut up into farms game will probably still further

decrease. Many of the species will, however, not be destroyed, but will migrate northwards. Such a large proportion of the most eligible shooting country has now been applied for by stock farmers that within a few years sportsmen will have to visit the remote districts seven or eight days from the railway to obtain satisfactory sport, or they will have to make terms with some of the larger stock farmers, who will, it is hoped, take an interest in preserving the game on their land.

'190. A statement giving returns of game shot and licences issued during 1903 has already been published and laid before the Houses of Parliament.' *

* See 'No. 5, Africa (1904)' [Cd. 1953].

Inclosure 1 in No 2.

List of Game Shot on 35 Sportsmen's Licences, 1903, in Eastern Province.

Species	Male	Female	Locality
Elephant . .	10	—	1, Athi; 2, Molo; 2, Baringo; 4, Naivasha; 1, Lake Victoria
Hippopotamus . .	7	3	1, Athi; 3, Baringo; 1, Kenia; 3, Lake Victoria; 2, Nakuru
Rhinoceros . .	32	7	25, Athi; 8, Baringo; 1, Mau; 1, Nakuru; 3, Kenia; 1, Lake Victoria
Giraffe . . .	1	—	Baringo
Eland . . .	12	1	7, Athi; 4, Baringo; 1, Voi; 1, Nakuru
Buffalo . . .	—	1	Baringo
Wildebeest . .	32	4	Athi Plains
Hartebeest, Neuman's	23	2	Lakes Nakuru and Elmenteita
,, Coke's .	118	15	129, Athi; 2, Naivasha, 2 Kenia
,, Jackson's	46	5	9, Baringo; 9, Mau; 30, Nakuru; 3, Lake Victoria
Topi . . .	10	2	Mau
Duiker . . .	20	2	6, Athi; 2, Baringo; 7, Elmenteita; 5, Kenia
Dik dik . . .	7	4	7, Baringo; 1, Makindu; 3, Elmenteita
Oribi . . .	8	—	3, Baringo; 4, Mau; 1, Kenia
Steinbuck . .	15	4	5, Athi; 6, Baringo; 2, Nakuru
Klipspringer . .	10	4	5, Athi; 7, Baringo; 2, Nakuru
Waterbuck . .	51	6	40, Athi; 3, Baringo; 1, Makindu; 2, Naivasha; 11, Kenia
,, defasa .	33	2	6, Baringo; 4, Mau; 25, Nakuru
Reedbuck, Bohor .	29	8	7, Baringo; 13, Mau; 12, Nakuru and Elmenteita; 2, Kenia; 3, Lake Victoria
,, Chanler's .	16	—	7, Athi; 2, Baringo; 7, Eburu
Impala . . .	105	6	47, Athi; 30, Baringo; 31, Nakuru and Elmenteita; 3, Kenia
Gazelle, Thomson's .	187	10	126, Athi; 6, Baringo; 55, Nakuru, Elmenteita & Naivasha; 10, Kenia
,, Grant's .	132	12	79, Athi; 55, Nakuru and Elmenteita; 3, Kenia
,, Waller's .	1	—	Voi
Oryx, beisa . .	11	3	Baringo
,, calotis . .	1	—	Makindu
Bushbuck . . .	19	1	1, Athi; 4, Baringo; 1, Mau; 12, Makuru and Elmenteita; 2, Kenia
Lesser kudu . .	3	—	Makindu and Voi
Warthog . . .	32	4	12, Athi; 9, Baringo; 15, Nakuru and Elmenteita
Zebra . . .	39	4	25, Athi; 5, Baringo; 13, Nakuru
Serval . . .	9	—	3, Athi; 1, Mau; 3, Baringo; 2, Nakuru
Colobus . . .	12	—	2, Baringo; 6, Mau; 4, Kenia
Ostrich . . .	9	—	4, Athi; 1, Baringo; 1, Mau; 2, Nakuru
Marabout . . .	5		Athi
Total . .	1,046	110	

Inclosure 2 in No. 2.

List of Game Killed on 102 *Public Officers' Licences (including* 14-*day Licences*), 1903.

Species	Male	Female	Locality
Elephant . . .	13	2	2, Athi; 4, Lake Victoria; 6, Mau; 2, Naivasha; 1, Baringo
Rhinoceros . .	12	11	7, Athi; 2, Nakuru; 4, Baringo; 10, Kenia
Hippopotamus . .	14	9	2, Athi; 16, Lake Victoria; 2, Nakuru; 2, Baringo; 1, Tana
Eland . . .	1	—	Seringati Plains
Wildebeest . .	35	4	34, Athi; 5, Kenia
Hartebeest, Neuman's	17	3	Nakuru and Elmenteita
,, Coke's .	135	20	128, Athi; 4, Naivasha; 30, Kenia; 3, Makindu
,, Jackson's	73	6	63, Mau; 7, Nakuru; 9, Baringo
Topi	40	3	29, Mau; 14, Jubaland
Duiker . . .	11	3	5, Athi; 5, Mau; 3, Kenia; 1, Coast
Dik dik . . .	12	5	4, Athi; 6, Jubaland; 1, Nakuru; 3, Mau; 1, Voi; 1, Baringo; 1, Coast
Oribi . . .	89	8	85, Mau; 8, Kenia; 2, Coast; 2, Jubaland
Steinbuck . .	23	7	17, Athi; 1, Lake Victoria; 1, Naivasha; 2, Baringo; 9, Kenia
Klipspringer . .	7	2	4, Athi; 3, Eburu; 2, Baringo
Waterbuck . .	42	2	23, Athi; 11, Kenia; 2, Makindu; 1, Coast; 7, Jubaland
,, defasa .	37	—	20, Mau; 5, Nakuru; 8, Baringo; 4, Kenia
Cobus, Thomasi .	6	1	Lake Victoria
Reedbuck, Bohor	62	7	63, Mau; 4, Nakuru; 2, Coast
,, Chanler's .	50	5	35, Athi; 8, Eburu; 1, Baringo; 11, Kenia
Impala . . .	94	1	39, Athi; 12, Lake Victoria; 14, Nakuru and Elmenteita
Gazelle, Thomson's .	174	7	122, Athi; 46, Nakuru and Elmenteita; 1, Baringo; 6, Kenia; 6 (?)
,, Grant's .	120	12	76, Athi; 26, Nakuru and Elmenteita; 30, Baringo
,, Peter's .	7	-	1, Coast; 6, Jubaland
,, Waller's .	9	—	8, Jubaland; 1, Voi
Sable . . .	3	—	Coast
Roan . . .	1	—	Sultan Hamud
Oryx, beisa . .	6	2	4, Baringo; 4, Jubaland
,, calotis . .	3	—	Voi and Makindu
Bushbuck . .	—	—	12, Athi; 5, Jubaland; 2, Mau; 5, Nakuru; 3, Baringo; 3, Kenia
Greater Kudu . .	2	—	Baringo
Lesser Kudu . .	3	—	Voi and Makindu
Pig and Warthog .	39	9	29, Athi; 1, Nakuru; 13, Kenia; 5, Jubaland
Zebra . . .	36	8	29, Athi; 1, Nakuru; 13, Kenia; 1, Jubaland
Ostrich . . .	10	—	8, Athi; 1, Nakuru; 1, Baringo
Marabout . . .	7	—	5, Athi; 2, Nakuru
Total . .	1,193	137	

BRITISH CENTRAL AFRICA.

'The game regulations in force differ slightly from those of Uganda and East Africa; they are not quite so stringent; but as they apply equally to Europeans and natives, and are rigorously enforced in every part of the Protectorate, the result is that there is little infringement of them.

'The total number of elephants shot was six, as compared with nine in the previous year—of these one was a female killed in contravention of the regulations; as, however, I was satisfied that this breach was committed through ignorance and inexperience, the delinquent was let off with a warning. In Central Angoniland there is no doubt that the size of the herds has considerably increased of late; this is due to elephants from territory beyond the Protectorate borders entering and remaining in Central Angoniland, where they find they are comparatively unmolested. It will, I think, be necessary to keep some check upon the large Angoniland herds, which at this season of the year do a great deal of damage in the native food gardens. The Angoni have no guns, and are practically powerless when a large herd of elephants enters the maize plantations. I have seen a herd in this district numbering over a hundred.

'With the exception of a few chiefs and headmen, no natives are allowed to kill game without the ordinary licences. Villagers are, however, allowed to shoot any description of game which is destroying their growing crops. There can be little doubt that the increase of game in this country is almost entirely due to the fact that indiscriminate slaughter by natives has been altogether stopped. The native of Africa, when uncontrolled, is the great destroyer of elephants and other game.

'In the Elephant Marsh Reserve the herds of buffalo are on the increase. These have never been shot at since 1897. They can often be seen on the outskirts of the Chiromo township.

'As a rule, Zomba is free from depredation by lions. It occasionally happens that there is a visitation; the last was in December 1903, when one lion and two lionesses killed several people, and carried off cattle and goats from the Zomba settlement itself. The lion was eventually shot by Captain Markham, and the lionesses then disappeared. Between Zomba and Mlanje, however, lions are very numerous on parts of the road, and difficulty is frequently experienced in getting letters carried, unless there are two or three men together; even then, having to sleep one night on the road, the postmen generally spend it in a tree.

'From the game returns (*see* Annexe No. 5) sent in from all districts of the Protectorate, it will be seen that the total number of beasts killed has been 2,288, as compared with 2,052 in the previous year. The largest number of any species shot was 304 (reedbuck), the next being 216 (hartebeeste).

ANNEXE No. 5.

Summary of Game Killed under Licence in British Central Africa during the Year Ending March 31, 1904.

(*Number of Licences Issued*—A, 7. B, 87. C, 119.)

	Port Herald			Chiromo, or Ruo		Chikwawa		Nchio		Mlanje		Blantyre		Zomba		Chikala		Liwonde		Fort Johnston		Fort Alston		Kota-Kota		Down and Lilongwe		Dedza		Nkata		Chinteche		Karonga		Fort Hill		Total	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Elephant	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5	1*	—	—	—	—	—	—	—	—	—	—	6	1
Rhinoceros	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	1	1	—	—	1	2
Gnu wildebeest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hippopotamus	—	—	—	—	13	—	—	—	—	—	8	5	2	1	1	—	4	1	7	6	—	—	4	3	16	5	—	—	—	—	—	—	2	1	—	—	57	22
Zebra	—	—	—	—	1	—	—	—	—	—	3	1	—	1	—	—	4	7	1	—	3	—	2	1	3	—	—	—	1	1	1	1	5	1	—	—	24	13
Sable or roan	—	—	—	—	2	—	—	—	12	4	16	6	8	4	5	2	16	4	3	3	5	4	2	1	16	6	—	—	4	—	1	—	6	1	—	—	96	35
Kudu	—	—	—	—	—	—	—	—	1	—	6	2	5	—	2	—	17	—	4	—	—	—	1	—	9	1	—	—	—	—	—	—	—	1	—	—	45	4
Colobi or other fur monkeys	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Aardvarks	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Serval	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—	—	2	—
Cheetah	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Smaller monkeys	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Marabouts	1	—	—	—	—	—	—	—	6	5	3	—	2	—	—	—	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	16	5
Egret	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—
Antelopes	—	—	—	4	—	2	—	—	—	—	—	1	—	1	2	14	6	8	4	3	2	2	—	1	1	—	—	—	—	—	—	—	—	—	—	—	36	15
Chevrotains	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Wildpig	—	—	—	—	—	—	—	—	5	1	—	—	—	—	—	4	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	9	3
Smaller cats	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Carrried forward	1	—	—	—	21	—	2	—	24	10	36	14	18	6	9	4	63	19	23	14	13	6	11	5	50	15	—	—	5	1	2	1	16	5	—	—	294	100

* Against Regulations: Commissioner communicated with.

SUMMARY OF GAME KILLED UNDER LICENCE IN BRITISH CENTRAL AFRICA DURING THE YEAR ENDING MARCH 31, 1904—*continued.*

—	Port Herald		Chiromo, or Ruo		Chikwawa		Nemo		Mlanje		Blantyre		Zomba		Chikala		Liwonde		Fort Johnston		Fort Alston		Kota-Kota		Dawa and Lilongwe		Dedza		Nkata		Chinteche		Karonga		Fort Hill		Total	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Brought forward . .	1	—	—	—	21	—	2	—	24	10	36	14	18	6	9	4	63	19	23	14	13	6	11	5	50	15	—	—	5	1	2	1	16	5	—	—	294	100
Jackal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	2	1
Warthog	—	—	—	—	—	—	1	—	1	—	4	4	6	3	—	—	10	4	8	3	—	—	—	20	7	—	—	—	—	—	14	5	—	—	—	—	63	27
Bushpig	—	—	—	—	—	—	1	—	—	—	9	6	3	6	2	—	2	2	1	1	—	—	—	6	3	—	—	—	—	1	5	4	—	—	—	—	28	24
Hartebeeste . . .	—	2	—	—	4	1	—	—	4	9	28	18	25	24	27	12	28	3	30	6	7	2	7	1	47	10	2	—	—	—	3	7	1	—	—	216	92
Impala	3	2	1	—	—	—	—	—	—	—	27	11	4	3	7	—	59	10	18	1	—	—	—	31	14	—	—	—	—	1	—	7	1	—	—	158	42
Reedbuck	1	2	—	—	—	1	—	—	30	11	51	11	26	3	15	2	16	2	27	4	16	7	7	1	60	22	5	—	1	—	5	49	11	—	—	304	82
Duiker	—	—	—	—	—	—	—	—	7	3	32	16	16	7	9	2	15	4	14	4	4	3	—	—	38	20	—	—	—	1	—	10	4	—	—	146	63
Klipspringer . . .	—	1	—	—	—	—	—	—	9	4	4	3	2	2	3	—	—	—	3	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	22	11
Steinbuck	—	—	—	—	—	—	—	—	12	6	25	11	3	2	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	42	19
Waterbuck . . .	2	—	—	2	3	2	—	—	19	2	30	19	7	1	6	—	19	5	12	2	5	1	3	—	40	11	3	—	—	1	1	38	7	—	—	188	53
Bushbuck	3	—	2	6	8	—	2	—	13	6	31	14	7	1	—	—	22	5	8	1	1	1	2	—	2	3	—	—	—	—	—	14	8	—	—	115	45
Puku	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	—	—	—	7	1	—	—	—	—	—	5	—	—	—	15	1
Lechwe waterbuck .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Inyala	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	2	—	—	—	—	—	—	—	—	—	3	—
Lion	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	1	3
Leopard	—	—	—	—	—	—	—	—	10	5	—	—	—	—	—	—	—	—	—	—	1	—	3	3	1	—	—	—	—	—	—	1	—	—	—	—	16	8
Hyæna	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	1
Any other . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	1	—	—	—	—	2	1
Total . . .	17		11		42		4		185		404		176		101		288		280		74		46		409		12		7		18		214		—		2,288	

UGANDA PROTECTORATE.

'Preservation of Game.

'101. Attached to the present Report is a return of all the game shot in the Uganda Protectorate during the year 1903 (Inclosure 3). Forty-three public officers' licences and seven sportsmen's

'*Inclosure* 3.

'Return of Game Shot in 1903 in the Nile Province.

Species	Male	Female	Principal Localities
Elephant	40	1	Butiaba, Bugaya, Nile, Hoima, Masindi Turkana, and Kemama
Zebra	9	2	Koki, Ankole, and Kemama
Oribi	33	1	Wadelai, Ankole, and Nimule
Reedbuck	19	4	Wadelai and Lake Albert
Kobus kob	43	—	Wadelai, Busibika, Ankole, and Lake Albert
Waterbuck	64	1	Wadelai, Ankole, Jinja, and Karamojo
Paa	2	2	Wadelai and Jinja
Hartebeeste	46	13	Wadelai, Lake Albert, Ketosh, and Karamojo
Colobus monkey	5	—	Wadelai, Ankole, and Gondokoro
Leopard	2	—	Wadelai and Ankole
Rhinoceros	10	1	Wadelai and Karamojo
Harness antelope	2	—	Butiaba and Nimule
Buffalo	8	—	Koki, Gondokoro, and Lake Albert
Bushbuck	22	1	Gondokoro
Hippopotamus	14	1	Gondokoro, Jinja, Lubas, and Karamojo
Warthog	14	2	Gondokoro, Ankole, and Karamojo
Roan antelope	7	—	Nile and Ankole
Pigs	1	2	Morotto and Nile
Topi	6	2	Ankole
Crocodile	3	—	Mruli
Antelopes and gazelles (Class B)	71	15	Gondokoro
Lion	1	—	Gondokoro
Impala	1	1	Ankole
Serval cat	1	—	Ankole
Otter	2	—	Ankole
Duike	1	—	Jinja
Thompson's gazelle	1	3	Karamojo and Morotto
Grantii	1	1	Karamojo and Turkana
Dik dik	2	4	Karamojo and Turkana
Monkey	1	—	Karamojo
Lesser kudu	1	—	Morotto

Public officers' licences 43
Sportsmen's licences 7

licences were issued. One breach of the Regulations was reported from the Nile Province, where the licence-holder was fined for shooting a female elephant. For the rest, the Rules have been well observed by the holders of licences, and by the natives fairly well in the territories under administration; beyond this, in the wilder parts, such as portions of the Nile Province and the large tract of country to the north of Mount Elgon, no attempt to enforce the Regulations can yet be made.

'102. During the year steps were taken by legislation to restrict the number of animals allowed to be shot under a fortnightly licence, when taken out either three months after or three months before an annual licence, by providing that the total number of animals shot under the two licences must not exceed the number allowed by the annual licence. The Rules allowing a few licences to native chiefs to shoot two bull elephants are believed to have so far answered satisfactorily; they have certainly given general satisfaction in the country, and since their issue I have received no further complaints of damage done to habitations and crops.

'103. The Game Regulations have met with a good deal of criticism at the hands of some of the would-be settlers, who point out that we are preserving animals they actually pay to exterminate in South Africa. Sorry as I should be to see any relaxation of the rules for the preservation of the wild animals of Africa, it must be admitted that the protection of elephants, deer, and other game is not compatible with agricultural interests in a country mapped out in farms, whilst hyænas and jackals are the deadly foe of the stock-rearer. Uganda, however, has not yet reached this stage, and when it does, matters could probably be adjusted by limiting preservation to certain well-defined Reserves.'

BAROTSELAND.

Game Regulations for the territory defined by the Barotseland North-Western Rhodesia Order in Council of 1899 were issued on January 20, 1905. Animals are therein divided into four series.

Schedule 1.

Bustard (including korhaan and paauw).	Dikkop.
Francolin (including pheasant and partridge).	Guinea-fowl.
	Sand grouse (Namaqua partridge).

And all such of the antelope species as are not contained in Schedules 2 and 3.

SCHEDULE 2.

Haartebeeste (rooi and Lichenstein).
Roan antelope.
Wildebeeste (gnu).
Hippopotamus.
Lechwe.
Klipspringer.
Impala.
Pookoo.
Sable antelope.
Tsesebe.
Sitatunga.
Burchell zebra.
Bushbuck.
Waterbuck
Gemsbok
Buffalo.

SCHEDULE 3.

Elephant.
Rhinoceros.
Giraffe.
Eland.
Koodoo.
Mountain zebra.
West African or White-backed duiker.
Ostrich.

SCHEDULE 4.

Lion.
Hunting dog.
Leopard.
Cheetah.
Otter.
Hyæna.
Jackal.
Baboon.
Destructive monkeys.
Crocodiles.
Pythons.
Poisonous snakes.
Large birds of prey, except vultures and owls.

Holders of an ordinary licence, costing £1, are entitled to hunt animals in Schedule 1. Holders of a special licence, costing for residents £5, for strangers £25, may hunt animals in Schedules 1 and 2. Holders of an Administrator's licence may hunt animals in Schedules 1, 2, and 3. An Administrator's licence may be issued by the Administrator at his discretion, but subject to the approval before issue thereof of the paramount chief of the Barotse nation, and such licence must bear stamps to the value of £50. Elephants are considered immature when carrying tusks weighing less than 20 lbs. a pair. Fines for contravening these enactments vary from £5 to £100, with imprisonment for terms varying from one to twelve months. Sections 23 and 30 run as follows :

'23. In accordance with the provisions of the concession granted by King Lewanika, paramount chief of the Barotse nation, to the British South Africa Company, dated October 17, 1900, natives shall be exempted from the provisions of this proclamation.'

'30. The foregoing sections of this Proclamation shall not apply to that portion of Barotseland in which the British South Africa

Company (by an agreement entered into with the paramount chief of the Barotse nation dated the 17th day of October, 1900) agreed with the said paramount chief to use its best endeavours to preserve game, that is to say:

'(1) All game and the animals mentioned in Schedule 4 in the district known as Diowa, lying north-west of Lealui, on the right (west) bank of the Zambesi River, and south of the lower Lungwi Bungo River;

'(2) Lechwe, sitatunga, and pookoo antelope on the lower reaches of the Luena River;

'(3) Lechwe and pookoo antelope in the Barotse Valley proper.'

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Hon. Secretary:

RHYS WILLIAMS, 2 Temple Gardens, London, E.C.

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THE SOCIETY FOR THE PRESERVATION

OF THE

WILD FAUNA OF THE EMPIRE

ORIGIN AND OBJECTS OF THE SOCIETY

The destruction of wild animals throughout the British Empire, more especially in Africa, had become so appalling that in 1903 a small Association was formed for the purpose of collecting information as to the number of wild animals killed each year, the gradual disappearance of species, &c., and to take steps so far as possible to check this destruction. The objects of the Association are to create a sound public opinion on the subject at home and in our Dependencies, to further the formation of game reserves and sanctuaries, the selection of the most suitable places for these sanctuaries, and the enforcing of suitable game laws and regulations.

The principal officials in charge of the various sections of British Africa are impressed with the importance of immediate steps being taken for the preservation of African game, and have, without exception, consented to become Vice-Presidents or Honorary Members of the Society.

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Buxton, A., Knighton, Buckhurst Hill.
Buxton, Edward North, Knighton, Buckhurst Hill.
Buxton, G. F., The Bank, Norwich.
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Chapman, Abel, Houxtey, Wark-on-Tyne, Northumberland.
Chapman, W. J., Fruitless Head, Appleby, Westmoreland.
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Coryndon, R. T., Administrator, N.W. Rhodesia.
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THE YEAR.

By S. H. Whitbread, M.P.

The Society for the Preservation of the Fauna of the Empire claims to be a practical body, with definite objects in view, and proposals to make as the result of widespread experience. It first came into existence as the outcome of several conversations, held chiefly in the home of its most energetic member, Mr. E. N. Buxton. Its first year saw it in the shape of a modest and unpretentious group of gentlemen of wide experience of the outposts of Empire, and a common enthusiasm for the preservation from wanton destruction of many of its Fauna. It published in 1904 a Report which at once attracted kindly notice in the Press, and awakened sympathy and interest among readers of all sorts. Last year, the second year of its life, saw it fairly launched upon the stream of public affairs as a going concern.

Its list of members is now of considerable volume and influence. The names of Lords Curzon, Minto, Grey, Cromer, and Milner, and Mr. Alfred Lyttelton, M.P., attest the fact that our great administrators are alive to the Imperial obligation of zealously guarding from wanton destruction the marvellous varieties of life which are still to be found within the circumference of His Majesty's Dominions beyond the seas. Among our Hon. Members is the President of the United States, statesman and sportsman, man of letters and man of affairs, one who loves both the tumult of politics and the silence of untrodden hills, and whom all lovers of nature remember with gratitude for the encouragement he has given to the protection of wild life in the States and Territories of the Union.

On February 2, 1905, we approached Mr. Lyttelton at the Colonial Office. We were received with the genial interest which was to be expected by all who knew the late Colonial Secretary. And though he candidly told us that financial considerations and the delicacy of relations between Downing Street and the self-governing Colonies might prevent him from attacking the task as effectively as we might desire, he promised us that the great value of the preservation of animal life should be pressed upon the attention of the Colonial Governments, and that every encouragement should be given from Home to the growth of 'a good resolute opinion with regard to the preservation of game'; and he followed up his protestations of sympathy by the practical step of becoming an Hon. Member of our Society. That the views expressed by this deputation were not lost sight of is shown by the fact that despatches were issued from the Colonial Office

during the months of March, April, and June to the Authorities of the West and East African Protectorates, Uganda and Somaliland, and to the British South Africa Company, conveying the views of our Society, and inviting suggestions on the best way of carrying them into effect.

We received early in February, from Lord Elgin, the new Secretary of State for the Colonies, copies of the replies to the despatches mentioned above, with the notification that he would be glad if the Society would favour him with any recommendations on the subject. As a result of this invitation another deputation was received by him on June 15, before which date our Hon. Sec. had forwarded to the Colonial Secretary a carefully considered statement of our views and recommendations. A full report of the proceedings on that occasion will be found in the pages of this Report, and it need only be remarked here that we had the valuable support of Lord Curzon, who spoke warmly in aid of the objects of the Society. Lord Elgin, while guarding himself with official caution in the matter of Finance, spoke with decided approval of our recommendations and promised 'sympathy, consideration, and assistance as far as it was in his power.' Later in the year, on July 30, Mr. Winston Churchill, replying to Sir Clement Hill in the House of Commons, stated that Lord Elgin was in communication with the various Authorities in Africa 'with a view to giving effect as far as possible to the views of the Deputation.' Finally, in November a Blue Book was issued entitled, 'Africa: Correspondence relating to the preservation of wild animals [Cd. 3189] 1906,' giving a mass of reports, ordinances, and correspondence from 1896 to 1906. Unfortunately this important public document breaks off somewhat abruptly, and we are left in doubt whether some of the most urgent and necessary recommendations of the Society will be carried out or not. The most pressing of these is the immediate establishment of an adequate Game Preservation Staff in British East Africa.

We have therefore reproduced in this number the very important letter and memorandum on the subject of the Game Ranger's Department in that Protectorate by Mr. F. J. Jackson, an eminently competent authority, and his accompanying estimate for this, if the Fauna in British East Africa is to be protected. This estimate amounts to £2,344 per annum, instead of the paltry sum and futile machinery hitherto allotted to this purpose. The Society has continuously urged on the Foreign Office, and latterly on the Colonial Office, that the large revenue derived from Game licences amply justifies such an expenditure, and we rejoice to hear, as we go to press, that Mr. Jackson's recommendations are being favourably considered.

A great deal of poaching has undoubtedly been going on even within the Southern Reserve during the past summer, chiefly, so it was said, by marauding bands of Boers, who crossed the frontier from German territory. A special officer was temporarily appointed to look after the Game, particularly in connection with

these Boers. One party was caught and fined for a breach of the cattle regulations, and this is believed to have had a deterrent effect.

We have also learned with satisfaction that our representations as to the mile-wide strip of Reserve to the north of the Railway, which had been completely neglected, have been attended to, and this portion has been restored to the Reserve.

Thus far has the history of our Society proceeded. Starting from small beginnings, it has steadily advanced in strength of numbers and in pursuit of its object. It numbers to-day 200 adherents. It has obtained the ear of successive Secretaries of State. It has elicited a remarkable consensus of approval from the Press. Public opinion is steadily growing in support of its work. It is not too much to claim on its behalf 'Vires acquirit eundo.'

With regard to the future, the question naturally arises in what direction should effort be concentrated during the present year? It is unquestionably in Africa that immediate and effective action is most urgently called for. The axiom has been generally accepted that it is the duty of an Imperial Government to preserve for posterity the varieties of animal life within its territories, always excepting dangerous and noxious creatures. It is further conceded that to do this effectively Reserves or Sanctuaries must be established where wild animals may live and multiply unmolested by man and his weapons, And a glance at the map will show a number of Reserves already established, apparently suitable in every way for this purpose.

But it is not enough to colour spaces on a map and to add in a footnote 'spaces coloured pink are Game Reserves.' Reserves must be watched and policed to ensure that their limits are maintained inviolate and their regulations observed; this means men, and men means money. And in these days when economy in the Imperial Services is so strenuously demanded, it must be our part persistently to point out that the preservation from extinction of wild animals, so far from being an object of unprofitable expenditure, is, in the truest and most Imperial sense, an economy. Not only is it obvious that the existence of game and wild life of all kinds in our colonies kindles interest on the part of the population of the Mother Country and stimulates exploration and settlement, but there is a much more practical argument. Mr. Jackson's remarks are of general application to all parts of the Empire, and should be read attentively and measures taken accordingly.

Moreover, it is most important that what is to be done should be done forthwith. It took but a few years to exterminate the vast masses of the American bison which used to darken the prairie and were counted one of the wonders of the New World. And so it will be with Africa unless the authorities will be wise in time. Several species have already gone, and others are confronted with imminent doom. Mr. Selous, writing with exceptional knowledge of the subject in South Africa, says: 'The true

quagga was exterminated in the early seventies, and a few years later all other game inhabiting the open grass country of the British and Dutch States had been reduced to a miserable remnant of their former countless numbers. To-day there are but two small herds of black wildebeest in the Orange Colony; and they owe their existence to the fostering care of two Boer farmers Messrs. Terblanche and Du Plessis names which deserve to be honourably remembered by all who care for the preservation of these beautiful animals.'

The elephant, of course, owing to the increasing value of ivory, is in special need of protection. And here again it is desirable to enforce Mr. Jackson's plea for an efficient staff in East Africa, since the Northern Reserve in that Protectorate shelters, or ought to shelter if properly watched, a considerable number of these animals; and generally throughout Africa it should be urged that under no circumstances should trade be permitted in tusks weighing less than a settled minimum weight. In this connection it may be remarked that when it becomes necessary to allow the killing of elephants on account of damage done, or apprehended, to crops and buildings, it does not in the least follow that any relaxation of this rule should be permitted. It may be necessary to kill your enemy in self-defence. But self-defence does not require you to make a commercial profit on the affair by selling his gold-stopped teeth. On these grounds we rejoiced when we learned from the Blue Book that the Colonial Office had raised the minimum weight of saleable tusks to 30 lbs., in accordance with our request, but our disappointment was great when on a further search we found that Uganda, which is probably the most important home of elephants left in Africa, had at the last moment been exempted from the rule. It is therefore the special privilege of the natives of that territory to hasten the extinction of the elephant by shooting immature animals.

So much has appeared in the public press on the subject of the tsetse fly and its relation to the terrible 'sleeping sickness,' and the responsibility of wild game for its presence, that the Society has sought the opinion of Professor Minchin on the subject, and his report will be found on p. 47.

It remains to extend a cordial invitation to join our ranks to all who love animal life and would preserve it from ruthless destruction. Our object is a definite and simple one, and we believe that the need for our efforts is urgent. The small annual subscription of half a sovereign is appropriated to defray the expenses in connection with the publication of this Journal, all secretarial work being performed by our Hon. Sec. Mr. Rhys Williams, to whom any inquiries may be confidently addressed.

So much public interest is now taken in the subjects which concern us that we find a superabundance of material, and several papers of special importance have reached us for which we can find no room in this number. We propose, therefore, to issue a further number in the course of a few weeks.

RECOMMENDATIONS OF THE SOCIETY SENT TO THE SECRETARY OF STATE FOR THE COLONIES IN JUNE 1906.

SOCIETY FOR THE PRESERVATION OF THE WILD FAUNA OF THE EMPIRE to COLONIAL OFFICE.

(Received June 9, 1906.)

British East Africa.

This Protectorate stands first in importance of any of the possessions of the Crown from the point of view of this Society. It supports a Fauna unrivalled in the world for variety and interest. We desire to reiterate in the strongest manner our contention of last year when we met Mr. Secretary Lyttelton, that the expenditure on game preservation is inadequate. This would seem to be an extremely short-sighted policy, as, if the game diminishes, the territory will cease to be an attractive field for sportsmen, and the large revenue (estimated this year at £9,000) now received from licences will be lost. The growth of the area being occupied by settlers increases the importance of the preservation of the Fauna, and we cordially concur with the recommendation of Mr. Jackson on this subject in the report communicated to us, except that the amount set aside would seem to be still inadequate.

With reference to the Southern Reserve, we share the opinion of the game officer that its position is the best possible, and have heard with regret that the mile-wide strip on the northern side of the railway which was formerly included is not strictly respected. We desire to press upon the Authorities the admirable situation of this Southern Reserve, upon which, in our opinion, the maintenance of the Fauna in the settled parts of the dominion depends, and to urge that under no circumstances should any part of it be alienated or leased or persons allowed to settle on it, and that no further concession should be granted within it, for railways or other undertakings.

We desire that existing regulations in regard to this Southern Reserve should be strictly enforced, and that adequate grants of money should be made with this view.

At the same time the Northern Reserve is yearly becoming of

more importance now that much of the Rift Valley has become settled. While nominally reserved, few practical steps seem as yet to have been taken to prevent illicit shooting. It is believed that large numbers of elephants are destroyed there. This is the home of the rarest and the finest of the Fauna of Northern East Africa; it is believed to be unsuited for colonisation or settlement; it is admirably situated from a geographical and zoological point of view; it is not known to be the home or the hunting ground of any important body of natives; it has not been touched by European settlement; and it can be controlled from the Masai Reserve, where British officials are already posted. We ask that the area now known as the Northern Reserve, with such modifications as further study on the spot may prove desirable, be henceforth also maintained as an inviolable national sanctuary for African Fauna; and that such a sum of money be at once allotted from the revenues derived from game licences as will suffice to provide and maintain an adequate staff of European and native watchers under the general supervision of the Government Game Ranger and H.M. Commissioner.

We would recall the fact that the people of the United States of America have given up a large area known as the Yellowstone Park, for the preservation of Fauna which were threatened with extinction, and we maintain that it is the duty and the interest of Great Britain to follow this example in East Africa.

Mr. Jackson's observations on the sale of hides, nominally from German territory, are of great importance, and it would seem desirable to make some arrangement by which this destruction might be stopped. The proposal to raise the minimum weight of tusks to 30 lbs. has our entire approval, and this measure may with advantage be extended to other Protectorates, some of which indeed are themselves asking for it.

We attach great importance to the game returns, and regret that they were not published for this territory with the last Annual Report. They are some guide to the increase or diminution of particular species.

There are many other details dealt with in Colonel Sadler's Report which would probably be best dealt with by the Commissioner on the spot.

In conclusion we wish to impress upon H.M. Government the fact that they have in the Fauna of East Africa an asset of large pecuniary value. The direct revenue from licences, &c., now amounts to between £8,000 and £10,000 a year; the indirect annual revenue from the visits of sportsmen has been estimated at over £20,000. It cannot be doubted that the creation of State preserves, as opposed to reserves, would not only tend to protect animals from wholesale destruction, but would, if properly managed, bring in large and constantly increasing sums to the Protectorate Exchequer. We commend this view to the favourable consideration of the Secretary of State.

Somaliland.

We have examined the question of the position and areas covered by the two Reserves. Mr. Gillett, a member of this Society, familiar with the regions in question, has prepared a plan and memorandum with regard to the habitat of certain lesser antelopes in danger of extinction. This is sent herewith.

The small reserve called the 'Hill Reserve' is in some respects the most important, because upon it depends the preservation of the greater kudu, which is perhaps in greater danger than any other animal of extinction in this Protectorate. Being the most distinguished of all the antelopes, with very restricted habitats and the bulls keenly sought by all sportsmen, it is deserving of special protection, and we suggest for the consideration of the Colonial Secretary whether this Reserve might not be extended or another small one set apart in the Gadabursi Mountains, which is one of the habitats of the greater kudu.

It would appear from p. 1 (5) that 'special licences' are granted to hunt in these Reserves. We question the wisdom of this, and respectfully ask that the number granted and the quantities of game killed under them, especially of the greater kudu, may be stated in the annual returns.

It is part of the game regulations for this Protectorate that every licensee should keep a register of game killed. It is desirable that this regulation should be strictly observed.

We have on previous occasions urged the desirability of the prohibition of the sale of horns and skins at Aden, and note with satisfaction Colonel Swayne's letter to the Political Resident at Aden. It would be matter for congratulation if the Colonial Office could come to some arrangement with the India Office on this matter.

Uganda.

The report of Commissioner Sadler that the regulations have been well observed by licence-holders, and that throughout the Protectorate there is an earnest desire to respect the game laws, is very gratifying. We hear with pleasure also that the Commissioner is not aware of any species which can be said to be even remotely threatened with extinction in the Uganda Protectorate.

As regards shooting in the Reserves we would refer to our remarks on the same subject under the heading of Somaliland.

British Central Africa.

We have not received any papers on this Protectorate from the Colonial Secretary, but have examined the brief allusion to the subject in the last Annual Report, which is satisfactory, also the return of game killed. We have further noticed that an agitation is being pressed by some of the local planters for the abolition of the Elephant Marsh Reserve near Chiromo, on the ground that

the inhabitants of that town go in fear of the lions and that the game animals harbour the bacilli of cattle disease.

We would urge that these allegations should not be accepted as proved, until some competent commission of biologists shall have determined this question, and especially whether there are not other means of destroying the tsetse fly, which is the carrier of those diseases; and further, whether all the animals are the hosts of those bacilli, and, if not, which animals are free from them. It is obvious that the lions, for instance, might be destroyed without sacrificing the whole Fauna. We further urge that great caution should be exercised, and this forest not lightly sacrificed to what may resolve itself into a mere demand for more land for cultivation or for speculative purposes. We beg to bring to your notice the enclosed letters on the subject of the tsetse fly, published in the *Morning Post* of May 18th and 21st.

West Africa.

Lagos.

According to the report of Captain Ambrose, the travelling Commissioner, a most deplorable slaughter of elephants and game animals is now taking place in this Colony, one-tenth of the population of certain districts being engaged exclusively in elephant hunting (page 1), and female and young tuskless elephants being killed for meat. In other districts the larger kinds of game are being rapidly exterminated.

If the temporary prohibition of the importation of gunpowder into the Colony is considered too drastic a measure, we agree with the recommendation of Acting Governor Thorburn, that adequate game reserves should be established without delay, and suggest that a close time should be ordered for all animals during certain months of the year, and that the sale of hides, horns, &c., should be altogether prohibited, and all elephant tusks weighing less than 25 lbs. be confiscated.

Sierra Leone.

We are glad to learn that the Governor proposes without delay to bring the question of game preservation before the native chiefs in order to prevent the indiscriminate slaughter of game animals.

Gold Coast.

We note that in the opinion of the Attorney-General (p. 13) there is no apparent necessity for a reserve in this Colony, but we beg to point out that according to the table (on p. 13) the ivory exported from the Gold Coast Colony has fallen from 33,003 lbs. in 1892 (valued at £5,417) to 2,749 lbs. in the year 1904 (valued at £725).

We respectfully recommend that the Governor should put into force certain of the regulations contained in the Ordinance of February 5, 1901, Section 2, especially (2), (3), (4), (5) and (9), and should amend (10) by prohibiting the local sale or export of the skins and horns of any game animal; and (11) by ordering the confiscation of all or any elephant tusk weighing less than 25 lbs.

Southern Nigeria.

We highly approve of the suggestions contained in paragraphs 4, 5, and 7 of the able report of Mr. H. N. Thompson, the Conservator of Forests.

Page 1, paragraph 4. We are of opinion that the hardship attendant on the general prohibition of the local sale of hides and horns, &c., of game animals would be of so temporary a character that it may well be disregarded. If local sales are prohibited the export trade must necessarily cease.

We hear with regret of the great slaughter during each rainy season of Buffon's Kob (*Cobus Kob*), and of the extensive export trade carried on in the skins of this beautiful antelope (page 2).

Paragraph 5. If the Reserves 'would not involve any considerable expenditure if placed in charge of the Forestry Department,' we trust that such reserves may be established as the High Commissioner considers suitable without delay. We see no objection to the preservation of game being transferred to that department.

Northern Nigeria.

We welcome the proposals of Sir Frederick Lugard to create a Reserve along the shore of Lake Chad.

Reserves are mainly of use as the sanctuaries and breeding-places of wild animals, who are quick to learn where they can live in security.

Small Reserves around towns cannot be compared in utility with an area large enough to allow a number of animals of different species to live at all periods of the year undisturbed by man. A well-selected district containing a certain amount of high ground, and bounded by the shore of a great lake, should be an ideal game reserve.

We trust that the necessary funds will soon be found available for this purpose.

Gambia.

1. As to page 1, paragraph 3, we recommend that the local sales of all hides, horns, &c. of game animals should be prohibited.

2. We desire to call attention to the rapid decrease in the export of ivory, which goes far to prove that the elephant is in danger of extermination in this region. The table (page 1, paragraph 9), shows that whereas 2,016 lbs. were exported in 1898, only 875 lbs. were exported in 1902, and 1,071 in 1905. We are

of opinion that in this Colony, as elsewhere in West Africa, no elephant tusk should be saleable under 25 lbs. in weight.

3. As to paragraph 12, we trust that the Governor will give further consideration to the question of enforcing a close time for all game animals, and that on a reconsideration of the question of establishing a reserve in a Colony which he describes as 'an ideal place for a game reserve,' he may be able to accomplish this most desirable object before it is too late to save the Fauna.

General Recommendations.

We venture to make the following recommendations:—

(1) That the returns of all game animals killed should continue to be included in the Annual Reports of each Protectorate or Colony. To them should be added statements, showing the receipts from all sources connected with the preservation of game—such as licences, fines, &c.

(2) That a map should be prepared showing the present game reserves in Africa.

(3) That the sale of hides, horns, &c., of game animals in the British Dominions in Africa and at Aden should be prohibited.

(4) That the sale of elephant tusks weighing less than 25 lbs. should be prohibited and the tusks confiscated.

(5) That no shooting whatsoever, except for administrative reasons, should be permitted in a reserve.

(6) That a strict return of all game killed should be made annually by every licence-holder.

Rhys Williams,
Hon. Secretary.

2 Temple Gardens, E.C.,
June 9, 1906.

MINUTES OF PROCEEDINGS AT A DEPUTATION FROM THE SOCIETY FOR THE PRESERVATION OF THE WILD FAUNA OF THE EMPIRE TO THE RIGHT HON. THE EARL OF ELGIN, HIS MAJESTY'S SECRETARY OF STATE FOR THE COLONIES.

Colonial Office, Whitehall, S.W.: Friday, June 15, 1906.

PRESENT:

The Duchess of Bedford.
Lord Curzon of Kedleston.
Mr. E. N. Buxton.
Mr. S. H. Whitbread.
Mr. W. Scoresby Routledge.
Mr. F. C. Selous.
Mr. Frederick Gillett.
Col. J. H. Patterson, D.S.O.
Lord Monk Bretton.
Sir William Lee Warner.
Dr. P. Chalmers Mitchell, F.R.S. (Secretary of the Zoological Society).
Mr. Edward P. Tennant.
Mr. E. E. Austen.
Mr. Mervyn Williams.
Sir Henry Seton-Karr.
The Hon. Wilfrid Ashley.
Mr. Rhys Williams, *Hon. Sec.*

Mr. E. N. Buxton: My Lord, I beg to introduce this Deputation from the Society for the Preservation of the Wild Fauna of the Empire. We had the privilege of waiting on your predecessor a year ago, and we felt that matters had marched since then: a great many settlers have come into your dominions, which rather alters the aspect of the case; and, besides that, we did not get all that we hoped to have got last year, although we had a most sympathetic answer from Mr. Lyttelton. One of the most important things which the Society emphasised was the necessity of spending more money upon the preservation of the species. We think that we have now a stronger case for asking that, more especially in British East Africa.

You were kind enough to send to the Society a number of despatches of great interest, from your Commissioners, dealing with this subject, and we find, what some of us knew before, that the actual revenue in East Africa from licences and fines from game-hunters amounts to something like £10,000 a year, to say nothing of the very large indirect expenditure, such as freight on railways, which is expended in the country; and we think that on the lowest ground we can ask you to require a larger expenditure on watching and supervision than has hitherto been the case. The Sub-Commissioner, in the report which you sent to us, deals with this

question, and makes a proposal which he thinks would be adequate to the case. That is for you, my Lord, and your officials to consider; but we hope that consideration will be given to the sanctity of the reserves and the security of the game. I need not enlarge further upon that point, except to say that the sum at present spent is, in our opinion, inadequate for the purpose.

Now, in making this complaint, I wish to say that while there are many minor defects which we should like to see remedied, we do not come here to complain of your officials. We think that the Game Laws, so far as is possible, have been well enforced and carefully observed on the whole, but we count on many of your officials as friends of the principles of our Society: the man on the spot is alive to the question as a general rule. Moreover, we urge that the attraction of the game to young officials—whether civil or military—is a very important thing. Your Services, depend upon it, are better and more efficient because of that attraction; and not only that, but to those young men who live in unhealthy climates it is an element of health that they should have that means of recreation.

To turn to more practical matters, we ask that special attention should be paid to what is called the Southern Reserve in British East Africa. There is no more beautiful or interesting sight within the Empire than the masses of great game visible from the windows of the train: the railway passes all along that reserve—which is exceedingly well placed and designed for its purpose. We ask leave to press upon you that this reserve and other reserves should be treated as sacred; that you should not part with lands to settlers or others within the reserve; we consider that the sanctity of the reserve would be most gravely interfered with if that were done. The reason why we think there may have been some slight laxity is that in the Game Laws as printed, or at any rate in a copy of them which is in our possession (there may be a more recent form, I do not know—we have heard nothing of it), the original constitution of the reserve included both sides of the railway; that is to say, what is called the railway zone on both sides was included, and without, so far as we know, any decree, that part which is to the east of the railway appears to have now been tacitly allowed to drop out of the reserve. We think that is a pity.

I should like to say a word about an attack which has been made in the Press recently with regard to another territory—namely, British Central Africa, by persons on the spot, or persons in England, who attack the general principle of reserves, more especially on the ground that the animals within them carry diseases, or harbour the disease bacillus, which is also carried by the tsetse fly and others. We would ask you to listen to what experts present may have to say upon that subject, and not too readily to be led by the opinion, which is not always a scientific one, of those who may have other objects in view than the one appearing on the surface. As to the importance, I have here a

letter from a very old servant of the Crown, with regard to whom there is no one who can be said to have had equal experience in the matter (I refer to Sir John Kirk). He says: 'But I am certain that nothing but well-chosen and strictly preserved reserves will save the game from extermination.' That, I think, is an opinion which will carry weight with everybody who knows Africa.

I will ask Lord Curzon of Kedleston to say a few words.

Lord CURZON: Lord Elgin, although I was invited to do so, I did not like to assume the responsibility of introducing this influential Deputation to you this morning, because I do not myself possess the familiarity with the conditions and state of the reserves in Africa which would enable me to address you with anything like the authority that Mr. Buxton has; still, I am very glad indeed to say a few words on the general question of principle which was raised by Mr. Buxton in the concluding part of his remarks, and about which he read that exceedingly weighty pronouncement from Sir John Kirk. I think, perhaps, I have some little right to do so, because the question of game, which I think did not come very prominently to the front in India during your time, did attract the notice of the Government of India in mine. We found that in India the same conditions existed to a large extent which Mr. Buxton has described as existing in South Africa.

We find in India a progressive diminution of many interesting and valuable types of animal life, which is due to a number of causes, the improvement of firearms, the increasing depredations of the natives, sometimes to protect their crops—which, of course, is a very worthy reason—sometimes to obtain food for themselves—again a very proper reason—sometimes, alas, for the money to be derived from the sale of skins and hides. Well, looking at the question in India, we came to the conclusion that there were two ways of dealing with that diminution of those types of animal life: one is by more stringent Game Laws, and the other is by reserves. Now, in regard to India, your familiarity with that country, my Lord, will remind you that we have existing in India, owing to natural causes, perhaps, the greatest extent of reserves in the world. In the first place we have our forest reserves, which, no doubt, were created in the first place for the growth and preservation of timber, but which constitute indirectly a sort of reserve for game; then the Native States in India, particularly when you have a sporting Rajah at the head, are in themselves a sort of reserve; and, finally, all along the north of India you have under the mountains the long strip of Nepaul, which, as at present administered, is perhaps the finest natural game preserve in the world. Therefore in India we have not to look at the question from the same point of view as in Africa; we have not got to create reserves, because they exist; and in India we were devoting ourselves, when I left the country, to an alteration and a strengthening of the Game Laws.

Now we turn to Africa, about which Mr. Buxton has been

speaking. There, as I understand, the conditions are absolutely the inverse: we have the Game Laws which have been devised in all the different Protectorates, many of which I have seen, which seem to me to be most skilfully and properly adapted to the varying conditions, differing, as they do, in different parts, and which, as Mr. Buxton has just said, are administered by high-minded and intelligent officers. Therefore we do not come to you now to ask you for any strengthening of the Game Laws, but we turn to the other branch of the subject, namely the reserves, and we come to you and ask you to use your great influence to supply those conditions which will make the reserves effective. Do not let us, who are enthusiasts upon this matter, for a moment conceal the fact that a case is made out, I do not say a strong case, but that an argument is made out against this policy of reserves. Let us admit that, and let us be prepared to contest it. I have read the correspondence in the papers to which Mr. Buxton alluded, and I am well aware that there are people who protest against these reserves on agricultural grounds, on economical grounds, on the grounds of protection for the natives, and on the grounds of the depredations alleged to be committed by the wild game which tend to collect inside these reserves. In my view all those arguments are important, and it will be the greatest mistake in the world to brush them on one side as worthless, because they are held by serious people, and people whose opinions carry weight, and what we have to do rather is to balance the case and to see what is to be said on the other side, and to inform our minds as to whether we are justified in asking you to decide on the whole in favour of reserves rather than against them.

I should be disposed myself to put the argument rather on different grounds from those which were adopted by Mr. Buxton. Although I hope I may regard myself as a keen sportsman, I will not look at the matter from the hunter's point of view; I do not think you ought to simply defend these reserves in order to provide shooting for young officials, be they officials of the Government or be they globe-trotters. Nor, again, do I think one ought to defend them mainly from what I may call the naturalist's point of view, I mean the point of view of the man who says 'You have your great museums in London, you have your Zoological Gardens: now let us provide live specimens for the one, and let us provide dead specimens for the other.' I believe myself that zoos and museums have a great educative influence in the lives of people, but at the same time I should not maintain that a special system of game preservation should be instituted in Africa or anywhere else simply in order to fill our museums or zoos.

There is another argument which Mr. Buxton mentioned which again makes me a little careful not to exaggerate, and that is as to the financial side of the question. He comes to you and he says: 'Now so popular is this sport, and so large are the sums of money which are derived from it, that it is really from the financial point of view rather a good thing for the Government.'

I think it is a potent argument, in so far as if large sums are received by the Government we can legitimately ask the Government to utilise those sums for the extension of the policy which we are advocating; but I would not like to lay too much stress upon that point of view, either; and the argument which I should like to submit to your point of view, my Lord, is this, that we owe the preservation of these interesting and valuable, and sometimes disappearing, types of animal life as a duty to nature and to the world. I have seen enough of the world in travelling to know not merely that many of these types have irretrievably gone, but that owing to the scandalous neglect of our predecessors there are others which are tending to dwindle and disappear now. We are the owners of the greatest Empire in the universe; we are continually using language which implies that we are the trustees for posterity of the Empire, but we are also the trustees for posterity of the natural contents of that Empire, and among them I do undoubtedly place these rare and interesting types of animal life to which I have referred.

I hope I have said enough, without boring you, to indicate that there really is a strong case to be made out for the policy of reserves which we are putting before you to-day. I am willing at once to say, as regards reserves, be as careful as you can as to where you allocate them: put them in places suitable for their purpose, and not inconvenient or unsuitable to the needs of others; then, when you have got them, have an efficient body of watchmen, sufficiently large in order to make the reserves effective, and also do not, in the interests of sport or for any other reason, allow the carnivora, dangerous wild animals, inside the reserves to multiply at the expense of the innocuous and beautiful specimens of animal life which we really desire to preserve. In a word, I think we may say that reserves which I am advocating to you ought to exist not for the gratification of the sportsman, but for the preservation of interesting types of animal life. If we can ground ourselves upon that principle, Lord Elgin, I think we shall stand well both with the public and with the officials of the Government, and I hope we may on those grounds, if on no other, commend our case to your sympathy this morning.

Mr. E. N. Buxton: I have asked Mr. Austen to say a few words on the important point of disease-carrying by animals, and the tsetse fly.

Mr. E. E. Austen: My Lord, with regard to this point which has been brought up recently in the daily Press by people who, perhaps, were not altogether quite qualified to write about it, there are one or two things to be said which I venture to think are of extreme importance. As, of course, you are aware, a great deal of attention is being attracted at the present time to the question of the sleeping sickness. Before that, attention was attracted for a certain time by the investigation into malaria, to a very common disease in domestic animals, commonly known as tsetse fly, or nagana. Both these diseases, the tsetse-fly disease, or nagana,

and sleeping sickness, are due to minute organisms which are very closely allied. In one case, the case of the disease which affects domestic animals, those parasites have been found, undoubtedly, in the blood of big game in Africa, and it has been found that those parasites can be conveyed from the wild animals to domestic animals by tsetse flies, and, so far as we know, by tsetse flies only. Africa is the only continent in the world in which tsetse flies are found, and it is perfectly true that tsetse flies, when they can, will take a meal of blood: they are frequently found in the same places as wild animals, on which they are seen to feed. Therefore people have assumed that if you protect the big game you are necessarily protecting tsetse flies. I venture to think, as a result of the study which I have made of this question for the past three or four years, that that assumption is not justified by the facts. In the first place, although you may get tracts of country which are swarming with big game, it does not necessarily follow that those tracts of country will contain tsetse fly at all; in the second place, with regard to sleeping sickness, we do not yet know which is the natural host of this parasite which causes the disease. Tsetse flies have been found in Uganda by the latest members of the Sleeping Sickness Commission sent out by the Colonial Office and the Royal Society, and those tsetse flies found in Uganda have been found to contain very similar parasites which would be mistaken, by an inexperienced person, for the parasites of the sleeping sickness, but which were not those parasites, but distinct from them. On the other hand, if you take tsetse flies and make them feed on infected human beings or infected monkeys, or other animals, you undoubtedly find that those tsetse flies do suck up the parasites, and are capable of conveying them to other animals. The wild tsetse flies are not, or extremely rarely, found to contain those parasites. Therefore we do not yet know what is the animal which conveys these parasites.

With regard to tsetse-fly disease in animals, the kind of tsetse fly which carries it certainly is not found in the parts of the country which are most frequented by big game, such as Masai Plains in British East Africa. It was said in the old days that that was the case with regard to the Orange Colony, and that it was the haunt of the wild game. It was the haunt of the wild game, but you never find tsetse fly there. Tsetse flies are only found in the hot, moist river valleys.

In the second place, as to the tsetse fly which carries sleeping sickness; at present the disease is only associated with one of the eight different kinds that we know, and is perhaps more confined to such definite tracts, as hot, moist river valleys, and margins of lakes, than any other places. I was informed only the other day, by a man who had returned from the Anglo-Egyptian Sudan, that the sleeping-sickness-carrying tsetse fly which is found in the extreme south of the Anglo-Egyptian Sudan is confined absolutely to the water's edge, and that you do not meet it more than a few yards from the water.

Therefore I venture to think that from this point of view Lord Curzon made a great point when he said that one of the most important things was the situation of your game reserves. I certainly think that provided the game reserves are placed in suitable localities, such as, no doubt, can be found in open plains, and not congregated along low-lying valleys, when you protect the game there will be no danger that you are also protecting the tsetse fly.

Mr. S. H. WHITBREAD: Lord Elgin, I only ask leave to add one point to those which have been impressed upon your attention by previous speakers, and that is a point which I ventured to press upon Mr. Lyttelton last year when we were in this Office—namely, that time is very much the essence of the whole of this question.

In the United States and in Canada, public opinion during the last 10 or 15 years has been very thoroughly and enthusiastically enlisted on behalf of the preservation of game. Strict regulations are in force throughout the whole of that large territory, and the liberty-loving people of America have willingly and gladly adapted themselves to those regulations. The result of that has been that game which was in imminent danger of extinction has been preserved, and that on some parts of that country with which I am acquainted, for instance, in our own Colony of New Brunswick, the moose, which, 50 years ago was said by Thoreau to be in imminent danger of immediate extinction, is to-day existing in larger numbers than ever. In the Yellowstone Park, of course, the great game reserve of the United States, an effort has been made to preserve the buffalo. Unfortunately that effort came at such a late period in the history of the gradual extinction of the buffalo that to-day there only exists in that reserve a small, degenerated, and, we fear, a gradually disappearing herd of that animal; indeed, it is not too much to say that if the Duchess of Bedford, who is here, would speak, she would be able to tell your Lordship that there are more healthy specimens of the American buffalo in Bedfordshire than there probably are in the United States.

All that points to the fact that, where you have game and a population using firearms in the condition under which they are using them in Africa, it is of vital importance that if action is to be taken to preserve the game it should be taken very soon. Our reports, and information which has come to us, show that some species have already disappeared, and that others are evidently in imminent danger of extinction; and, of course, every year those conditions are more emphasised. We venture respectfully to hope that in considering this question you will bear in mind that whatever is to be done should be done quickly, and that if matters are put off too long there is great danger that the whole subject, in the interests of which we are here to-day, may almost, if not quite, have disappeared from our territory. We are quite sure that public opinion some day in South Africa will be really and deeply grateful to any Government and to any official who has had the

foresight to come in and preserve these valuable and beautiful animals from extinction before it is too late.

Sir Henry Seton-Karr: Lord Elgin, I do not propose to occupy your valuable time more than a few moments. I did not come here with the intention of making a speech, but may I respectfully comment in a few words upon what fell from Lord Curzon? I listened to his remarks with the greatest interest, and I think I almost entirely agree with what he said; but I should like to add this humble criticism. I quite agree we do not want the preservation of game on the general ground of the gratification of sportsmen, and that is an idea which should be promptly dispelled from the mind if it ever existed. I for one fully sympathise with the Imperial sentiment expressed by Lord Curzon, but I should be sorry to see the financial question, with all due respect to him, lost sight of. This is a utilitarian age, and the public might like to be satisfied that it is, besides being a matter of public sentiment, commercially and financially advantageous to preserve the game. Personally, I think that is one of the strongest arguments in favour of our views, and I think that the figures of the revenue which are contained in our Paper, and on which we lay stress, point clearly to that end, and that it is a practical advantage to any wild country that the wild animal life contained in it should be maintained, not only for sentimental reasons and as a matter of interest, but also because they are a valuable source of revenue while that country remains in a comparatively wild state, and that the revenue derived therefrom may very well be utilised in enforcing and carrying out the laws and regulations for their preservation. I, for one, would humbly emphasise that minor point to-day.

There is only one further point: I should like to confirm what has fallen from Mr. Whitbread with regard to the Yellowstone Park, with which I am acquainted, and the example of the American people in the matter of preservation of game. I firmly believe that the reason why they have so practically and thoroughly taken up this question of the preservation of big game, and have so readily enforced the sanctity of the Yellowstone National Park, is because the lesson was rubbed into them by the extinction of the buffalo. I was out there before the buffalo became extinct, and I know what happened at the time when everybody who could buy a cheap rifle and ammunition was able to go out and shoot anything he liked. At that time the American nation was extremely callous with regard to the preservation of game, and they thought, no doubt, it would go on preserving itself to the end of time; they suddenly woke up to the fact that the buffalo, an interesting and unique animal of the North American continent, was practically extinct. They woke up to the fact when it was too late, and, with regard to that particular species, they shut the door. But they are now carrying out, and spending money freely in carrying out, the preservation of the remaining species of big game—and they are a practical and utilitarian people.

My Lord, I submit that is a good example for us in Africa. Sometimes it is alleged that we cannot afford to spend the money, and that it is useless to try to enforce the regulations in a great wild country like parts of Africa. I point to the example of the United States: they spend what correspond to Imperial funds—from the Exchequer of the United States and not of the particular State—in enforcing those regulations. There is always an adequate force kept at the National Park to prevent any poaching: it does not matter who a man may be—he may be a European Potentate, but he would never be allowed to fire a shot inside the National Park; its sanctity is absolutely enforced. They do not care what they spend in preserving it, so long as the thing is absolutely and properly done. I submit that what they have done we can do in Africa if we take the trouble, and if we spend the money. I again emphasise and urge what Mr. Whitbread has said, that time is absolutely the essence of the question. If we delay, certain species may be extinct, and then we shall be exactly in the same position as the American people were in—we shall wake up to the importance of preservation, and we shall find that some valuable species are absolutely extinct and cannot be replaced.

Mr. E. N. Buxton: Mr. Gillett is very familiar with the state of things in Somaliland.

Mr. Frederick Gillett: My Lord, I do not know that I am prepared to say very much about Somaliland, except that the fauna there are, a great many of them, not found elsewhere, and it is very important, I think, that they should be carefully protected. I have here a map, which I made out for myself, showing the various species and how very local they are. (Mr. Gillett exhibited the map to his Lordship.) There are a great many animals which are extremely local, and are only found in Somaliland, and it would be a very great pity indeed if, in a country which can be so very easily protected, these animals should be allowed to die out.

With regard to the tsetse fly, I should like to say that at a scientific meeting of the Zoological Society last month, Dr. L. W. Sambon exhibited a large series of diagrams of insects carrying these diseases, and I took the opportunity to ask him, as so much was being written in the papers on the subject, whether, in his opinion, the game was responsible for the existence of these flies, and he stated most emphatically that from the result of his researches he came to the conclusion that the game was not responsible; that in districts, as has already been said, these flies existed where there was practically no game at all. He put forward an opinion, but I do not know that he was absolutely satisfied upon it himself, that certain fish which burrow into the muddy banks of the river were responsible for the flies. Of that he was not quite certain, but at any rate he felt quite certain that the game was not responsible.

Lord Elgin: I understand that when you were received by

my predecessor, Mr. Lyttelton, he said that he looked more to receive information from you than to express definite opinions of his own. I confess I am pretty much in the same position, but I admit the circumstances have somewhat altered.

At that time what Mr. Lyttelton undertook to do was to address the Governors of the different Colonies, and to ask them to submit reports. Those reports have been received, and they have been sent to you for your opinion, and only two days ago I received from you your observations with regard to those reports. I do not think that I should serve any useful purpose if I attempted to go through the different reports in detail, but I may just say this with regard to the general recommendations which you have placed at the end of the observations which you have been good enough to make, that I think for the most part they are reasonable recommendations which we might act upon, and, at any rate, recommend to the Authorities in the different Colonies. On two points—that is to say, the third and fourth heads, with regard to the sale of various articles—of course we should have to get the opinions of the Authorities on those points. Those points are '(3) That the sale of hides, horns, &c., of game animals in the British Dominions in Africa and at Aden, should be prohibited. (4) That the sale of elephant tusks weighing less than 25 lbs. should be prohibited and the tusks confiscated.' But, speaking generally, I have no objection to expressing my general adherence to these recommendations which you have been good enough to make. Now I understand, from the remarks which have been made, that on the question of game laws I am not asked to say anything—that you are satisfied with the game laws as they exist, and that the main point is with regard to the question of reserves. With regard to the question of reserves, I accept the position that when there are reserves they certainly ought to be sacred. ('Hear, hear.') I cannot see any object in having a reserve unless it is so. ('Hear, hear.') But then it follows from that that we must be very careful as to the position in which the reserves are placed. These Colonies are, many of them, countries in process of development, and I do not know whether one can lay down that under no circumstances should a reserve which has been made for game not be available for the future increases of population. But so long as it is a reserve, I agree that it should be so placed that it can be kept sacred for the purposes of the preservation of game.

I am not quite sure that I appreciate the possibility of a railway running through a reserve. Mr. Buxton mentioned one case—and, of course, I am speaking without intimate knowledge of the circumstances—in which that happened, and it reminded me of a circumstance which occurred during my time in India. As Lord Curzon has mentioned, I had not heard so much of game there probably as he had, but I remember on one occasion, when we were going to pass through a country where the railway ran through a less inhabited part of the district, we were under some apprehension whether we should get through in safety, because a

few days before our train was due the train had run into an elephant, and there had been an accident in consequence. I do not know, I am sure, how, in the case of this particular reserve, that is guarded against, but I know there was a case not long ago in which railway works were proceeding in Central Africa at a place called Chiromo, and I understand that the works were attacked by lions. I have been told officially that those reports were considerably exaggerated, but still the fact remains that a lion did appear.

I only wish to mention those points to emphasise that I think in the selection of reserves one must, although choosing them for the purposes of the preservation of game—and in speaking of the preservation of game I entirely adhere to the object which Lord Curzon expressed as being the principal object for which we wish to preserve game, namely for the preservation of the species, although I do not ignore the commercial side of the matter—although that is so, I do think that, in justice to the ordinary administration of the country, one has to consider the preservation of the means of locomotion, and also the question of the progress of the population as time goes on.

There is one point with regard to the reserves which I think must be borne in mind, which one gentleman has spoken of here: namely, that when we have a reserve we must have it properly protected—('Hear, hear'); we must have a sufficiency of forest guards and forest staff. Where are we to get it from? It is a question of money. Something has been said about funds derived from game licences, and so on. That, I believe, applies in Uganda. I am not sure that it applies generally, but what does apply generally in the management of African Protectorates is this, that they are all countries in the process of development, where the revenue is very scanty and the needs are very great. We have a difficulty in providing even for the decent accommodation of our officers in those parts of the world; and, as the local revenues cannot supply the means, we are obliged to go to the Imperial Treasury. It is with the Imperial Treasury that this matter really lies. ('Hear, hear.')

I think that what has been said as to the United States emphasises the point which I am now making. It has been said that in the United States it is not a question of local revenue, but it is a question of general revenues which are applied to the preservation of the animals in Yellowstone Park. Well, I do not know: it is scarcely a matter for this Office to advocate with the Treasury, at least unsupported, and it would need a considerable amount of support, probably, to induce the Treasury deliberately to take up the position that they are bound to supply from the Imperial Exchequer the funds necessary for providing forest guards in different parts of Africa. But that is the real difficulty of the matter, and it has to be faced. In many of the Protectorates of Africa the revenues of those Protectorates are insufficient to give what you would certainly call adequate protection; and where, as

is very commonly the case, even for the general purposes we have to rely upon Treasury grants, any question of an increase in expenditure on forest staff or forest officers must come up in the ordinary course of business in the Estimates which we have to submit to the Treasury ; and while I can safely say that anything I can do in the direction which this Deputation wishes will be most willingly done, I cannot promise, without the assent of my friends across the street, that funds will be available to do all that it is desired should be done.

That, really, gentlemen, is, I think, all that I can usefully say. Like my predecessor, I wish to profess my great interest in the whole of this subject ; I shall take care that the observations which you have made in detail upon the reports which we have received shall be submitted again to the local authorities and recommended for their consideration, and everything we can do within our means we shall be very glad to do to carry out the object which you have come here to support. If anything further can be done, I can safely promise you my sympathy, consideration, and assistance, so far as it is in my power. ('Hear, hear.')

Mr. E. N. Buxton : In thanking you, Lord Elgin, for your kindness in receiving us to-day, and for your very valuable remarks, may I call your attention to the Deputy Commissioner's remarks in the report which you have sent to us, in which he says, 'I am strongly of opinion that a steady increase in the revenue derived from game licences and fines for breaches of the game regulations since 1903 now justifies an appeal to the Secretary of State for larger expenditure on the protection of the game.'

Lord Elgin : That is the case of Uganda ?

Mr. E. N. Buxton : British East Africa.

Lord Elgin : I beg your pardon, British East Africa.

Mr. E. N. Buxton : Then he proceeds to lay down for your consideration an estimate for ranger, deputy ranger, assistant ranger, and so on —as to what it would cost.

Lord Elgin : Yes.

Mr. E. N. Buxton : What we would ask you to do is to look at it from the point of view of what will happen if you do not take these steps : you will lose this revenue ; the game will diminish, and the attraction of the country will cease. So that, putting it upon the lowest economical grounds, I think really we have made out a very strong case for adequate expenditure, more especially in British East Africa, where there is a more varied fauna than in any other part of the world.

With regard to your remark, my Lord, if I may detain you for one moment longer, in the opinion of this Society the time when a game reserve is of the most value is when it comes into contact with civilisation ; when civilisation begins to impinge upon the reserve, then it is of the most value, because it is then that the game is apt to be killed out, and it is then that the settler of the future will most appreciate the precaution of maintaining the reserve where it is of most use. Take, for instance, British East

Africa, where there are two reserves : one is on the railway the railway passes alongside of it, as I understand, which gives great advantage for inspection—and the other is remote, in the north. We do not ask that you should do the one and neglect the other ; we ask that you should attend to both ; but the one which is of far the greatest consequence is the one already in contact with civilisation, and we beg that you will not too hastily abandon, for the sake of a small increase of revenue, what will be immensely valued by a future generation. ('Hear, hear.')

We thank you very much, my Lord.

(The Deputation withdrew.)

NUER WOMEN

(*see "White Nile revisited"*)

EXTRACTS FROM BLUE BOOK ISSUED NOVEMBER 1906.

[The following are extracts from the Blue Book correspondence relating to the preservation of wild animals in Africa. They relate to those subjects of most immediate concern to the members of the Society, but it must not be supposed that they by any means exhaust the interest and importance of the volume as a whole.—Editor.]

Commissioner Sadler (*East Africa Protectorate*) *to the* Earl of Elgin.

(Received April 6, 1906.)

[*Answered by No.* 228.]

'Commissioner's Office, Nairobi, March 12, 1906.

'My Lord,—I regret the delay that has occurred in replying to Mr. Lyttelton's despatch, of June 1st,* regarding the preservation of game in the East Africa Protectorate.

'2. I have now the honour to submit copy of a letter and memorandum from the Deputy Commissioner giving cover to a report by Mr. Percival on the preservation of game in East Africa.

'3. The matter is receiving my attention, and I hope soon to be in a position to add my views to those already expressed in the papers now submitted.

'I have, &c.,
'J. Hayes Sadler.'

Enclosure 1 *in No.* 220.

'Nairobi, February 16, 1906.

'Sir,—In forwarding a memorandum enclosing Mr. Percival's remarks on the preservation of game in this Protectorate with apologies for the delay—I have the honour to submit the following remarks on the question of a Game Ranger's Department.

'In my estimates for such I have included a Ranger at £600 a year. I have done so because there is a widespread feeling in this country that if the question is to be taken up seriously with

* No. 191.

a view to preserving the game from extinction within the next decade or two, more particularly the rhinoceros, greater kudu, roan and sable antelopes, the buffalo and eland, all of which have sadly decreased in numbers within the last 16 years, either through diseases (rinderpest) or the advance of civilisation, an adequate and properly organised Game Ranger's Department should be established without further delay.

'The "Department" consisting as it does at present, of Mr. Percival, the Ranger, and four or six native scouts is considered, with truth, to be little more than a farce. This, I submit, is no fault of Mr. Percival.

'For several years our Chief Veterinary Officer was single-handed with one Indian assistant, and the "Department" was the subject of similar ridicule.

'Even if Mr. Percival had more funds at his disposal for an increased staff of native scouts, they would be of little use without European supervision. Our past experiences with native police and native tax-collectors have proved this beyond all question. Mr. Percival certainly has the making of a very good Ranger. He is young, active and keen, a fearless rider, is inured to hardships, a complete stranger to all idea of comfort, a good sportsman, and a naturalist. I am myself in favour of his remaining as Ranger, and at a salary of £400 a year. He was originally appointed as an Assistant Collector in June, 1900, and Game Ranger in May, 1901, but did not take up his duties as such until the following October, and he still appears in the staff list among the Assistant Collectors. Messrs. Pearson, Partington, Haywood, and Maclean, all of whom were junior to him, have already been promoted to Collectorships.

'Regarding the three Assistant Rangers, it is more than doubtful whether an Assistant Collector now in the country would care to exchange from one branch, where promotion has hitherto been fairly rapid, to one in which it would be very remote. Should, however, a suitable candidate come forward for the post of Deputy Ranger I would suggest the salary be £300 a year. If no suitable candidate should be forthcoming, three Assistants should be appointed at a salary of £250 each, on probation for one year. At the end of the year, one of them should be selected, according to merit, for the post of Deputy Ranger at £300 a year. It may be considered that these salaries are too high, and that the three Assistants should rank as subordinates. Against this I would urge our experiences with Europeans on the Subordinate Staff. Before the Administrative Staff was increased to its present strength, both in this Protectorate and in Uganda, our experiences with Sergeant Instructors, Police Inspectors, and other Europeans on the Subordinate Staff were far from happy. So long as they were under supervision the majority were quite satisfactory, and did excellent work, but directly they were given a little authority, and were alone, even though temporarily, the best of them went astray in one way or another.

'An alternative estimate to that suggested in my memorandum would, therefore, be as follows:—

Ranger	£400
Deputy Ranger	300 or £250 for first year.
Assistant Rangers:—	
Two at £250	500
Horse Allowance:—	
Four at £36	144
Native Scouts	200
Expenses	500
	£2,044

'I have, &c.,
'F. J. JACKSON.

'His Majesty's Commissioner,
Nairobi.'

'MEMORANDUM.

'HIS MAJESTY'S COMMISSIONER,

'1. I am strongly of the opinion that the steady increase in the revenue derived from game licences and fines for breaches of the Game Regulations since 1903 * now justifies an appeal to the Secretary of State for a larger expenditure on the protection of the game. At present Mr. Percival, the Game Ranger, is single-handed. He receives a salary of £250 a year, and his average annual expenses have been about £100. Game is found throughout three-fifths of the whole Protectorate in great variety and more or less plenty, and in about one-fifth in great quantities. The Uganda Railway runs through country in which game is found for nearly 400 miles of its total length of 581 miles; and it bounds the Southern Reserve for the whole length of its north-eastern border for a distance of 194 miles. Yet, in spite of such rapid means of locomotion, it is obviously impossible for one man, with only half a dozen native scouts to assist him, to have anything but the very vaguest idea of what is being done in the matter of poaching in the Reserve, or of breaches of the Regulations in other respects elsewhere, even within a few miles of the line; and further afield it is impossible that he can know anything.

'Few, however, will deny that poaching, shooting without licences, and other breaches of the Regulations, are of daily occurrence, and are likely to continue until the Game Ranger is asssisted by an adequate staff. Prosecutions have, so far, been very few, and the majority have been at the instigation of Collectors and Assistant Collectors of districts, and not on information laid by the Ranger or his scouts. Through lack of funds at his disposal Mr. Percival is at present tied down at Nairobi for about eight months in the year. Such a condition of affairs is most unsatisfactory, and compares very unfavourably with the

* 1903, £3,650; 1904, £5,990; 1905, £7,000; 1906, £9,000, estimated.

efforts to protect game that are being made elsewhere. In the Transvaal something like £5,000 a year is expended on a small reserve under the direction of Major Stevenson-Hamilton.

'2. Regarding the Boer colony in German territory, and on the border of our Southern Reserve, I am informed by Mr. Ainsworth, the Sub-Commissioner, Nairobi, that this colony has now broken up, and that the Boers are trekking northward in the hope of finding land near Nairobi. There should, therefore, be no difficulty in controlling them in future, in the matter of shooting game.

'3. I fully agree with Mr. Percival that the position of the Southern Reserve is in every way satisfactory, and that it covers the migration of the greater part of the game found within its limits. There are something like 27 species of game found in this Reserve out of a total of about 56 species and sub-species known in the Protectorate.

'The eastern, or "Jubaland," half of the present Northern Reserve was created some years ago when the Naivasha Province formed part of the Uganda Protectorate. The principal object of this (Jubaland) Reserve was the protection of the elephant. It was, however, soon found that traders passing Baringo Station, and proceeding northwards into the Suk and Turkana countries, were entering this Reserve from the west, in the vicinity of Loroghi, and were destroying great numbers of elephants.

'Also, about that time a large so-called sporting expedition, under a Frenchman named Sporck, was reported to be on its way out, *en route* for Abyssinia and the Nile, *viâ* Baringo and Lake Rudolph, and as nothing further was known about the expedition and its objects, Sir Harry Johnston declared the Suk and Turkana countries a game reserve. This was known as the Sogota Reserve of the Uganda Protectorate, and it now forms the western portion of the present Northern Reserve. This Northern Reserve is at present outside the limits of our effective administration, and until recently continued to be the happy hunting-ground of Somali, Baluch and other traders, who killed large numbers of elephants without let or hindrance. This destruction is now checked by the more rigid enforcement of the Outlying Districts Ordinance, and no one is allowed to enter these districts without a permit

'Until such a time as the Game Ranger can visit the Northern Reserve and submit a report and recommendations, I agree with Mr. Percival that it would be better not to reduce the area. The principal object of this Reserve should continue to be the preservation of the elephant, and this will probably prove feasible even if the western or Sogota half is eventually thrown open. Every species of game known to exist in the Sogota half is found in equal plenty in the Jubaland half.

'4. The regulation regarding the sale of horns and skins is strictly enforced.

'It is, however, to be regretted that in German East Africa

a considerable trade in game hides has sprung up, and within the last three years over 600 have been brought down by the railway and passed through the Customs at Mombasa, in transit. Mr. Marsden tells me that many others, in sealed packages, have also passed through. Most of these hides have come from Shirati, just across the Anglo-German frontier, and as the district on our side of the boundary is known to be one of the best, though least known, of the game countries, it is not improbable that the greater proportion of these hides was obtained in British territory. I happened to be at Kisumu three years ago when the first consignment of these hides passed through, and suggested at the time that this trade could, and should, be at once checked by increasing to a prohibitive rate the railway freight on all game hides, other than those obtained legitimately on a licence.

'5. In the revised Game Regulations the minimum weight of ivory allowed to be exported has been raised from 11 lbs. to 30 lbs., and it is to be earnestly hoped that this suggestion will meet with the Secretary of State's approval and sanction. I have consulted many sportsmen and all the senior officials on the subject, and all are agreed that it will prove the only effective means of preserving cow elephants and immature bulls. It will also effectually stop the endless disputes that have hitherto arisen regarding cow ivory. I may add that the late Sir Donald Stewart was in favour of it, and would have recommended it for favourable consideration.

'Since the German authorities have made no efforts to prevent this export of zebra and other game hides, it is improbable that they will prohibit the export of cow ivory, and there will, therefore, always remain an outlet from this Protectorate by smuggling into German territory.

'This illicit trade, however, can be reduced to a minimum by our making it compulsory for all owners of ivory, whether traders or sportsmen, to register the same at one of the Government up-country stations, of which there is now a complete chain across the Protectorate between Kitui and Kisumu. At least eight-tenths of the ivory obtained in this Protectorate, as well as all the ivory from Manimani and Dodosa in the Uganda Protectorate, comes from the countries north of our chain of stations, and it would, therefore, be no hardship on anyone to call in and register it, and receive a pass for the same from the officer in charge. The details regarding the number and weight of each tusk would then be notified to the Chief of Customs at Mombasa by post or telegram if necessary. All ivory not so registered would be detained at Mombasa, or other port of exit, until a satisfactory explanation was given.

'6. Game returns are of great value in arriving at the approximate number of the various species of game killed annually, and there is no reason for believing that these returns are not submitted correctly by the majority of licence-holders.

'7. I agree with Mr. Percival that for the present all but the

simplest cases of breaches of the Game Regulations should be submitted to a senior official, and I should be happy to consider all such cases, and issue any instructions that might be considered necessary ; but I consider that it would be more satisfactory if the Ranger himself was of sufficient seniority to deal with all breaches of the Regulations.

'8. With regard to native hunters, I believe few, if any, are in possession of firearms, and that they rely entirely on their own primitive methods of killing game, viz. bows and poisoned arrows, spears, and pits. The Dorobo, Wasania, Waboni, and a few others, who have lived for generations by hunting as a means of livelihood, may be considered as entitled to kill game in their own districts, and even if we were in a position to prevent them it would, I submit, be unfair to do so. On the other hand, the Wakamba and Kavirondo, who are agriculturists and also rich in stock, have been, and still are, but to a lesser extent, in the habit of organising large hunting parties and killing game wholesale outside their own districts, and I hold that these people have no hereditary right to do so. In their own districts there is no game, and it is only within the last ten years or so that the Wakamba have dared to leave the confines of their own districts and enter the adjoining game country, owing to the dread of the Masai. The Masai no longer molest them. The same remarks apply to the Kavirondo of the lower Nyando Valley. Up to the time of the military operations against the Nandi in 1900 these Kavirondo never hunted in the valley, for fear of the Nandi on one side and the Lumbwa on the other ; but since then, and up to quite recently, they have destroyed the game wholesale. This has now, I believe and hope, been stopped. It is, however, much more difficult, if not impossible, to deal with the Wakamba referred to by Mr. Percival, who enter the Southern Reserve at various points at night, and there is no chance of our being able to deal with them until the staff of the Ranger has been increased.

'The question of placing the Ranger in a position to deal with the matter of game preservation in a proper and effective manner is one of great importance to the country. It is acknowledged by everyone who has visited East Africa that there is no other country in the world where game is found in such plenty and variety, and at the present moment it is indisputably one of the most important assets we have.

'Great numbers of sportsmen from Europe and America are now visiting the country, and others, in increasing numbers, will follow.

'Over and above the large sums of money spent and circulated throughout the country by them, a considerable amount of which comes back to us in the form of hut tax, the revenue alone from game licences, Customs dues on rifles, ammunition and camp outfit, railway fares and other dues, cannot be less than £20,000, probably more.

'Our only hope of keeping up the revenue from this source,

quite apart from all sentiment in the matter of saving a rich fauna from extermination, is an efficient Game Ranger's Department, and I would strongly urge that such department be established as soon as possible, and as follows:—

Estimates for 1907–08.

Ranger	£600
Deputy Ranger	400
Assistant Rangers: 2 at £250	500
Horse allowances: 4 at £36	144
Native scouts	200
Expenses	500
Total	£2,344

The Ranger should have his headquarters at Nairobi. One Assistant Ranger should be in charge of the Southern Reserve and adjacent "open" districts, with headquarters at Makindu and Kiu.

'One Assistant should be in charge of the Northern Reserve and adjacent "open" districts, with headquarters at Rumuruti or Baringo.

'With an Assistant in charge of each Reserve, the Ranger and his third Assistant would then be able to move about from place to place as occasion required.

'The Assistant Rangers should submit quarterly reports with details as to the approximate numbers of each species of game in their respective districts or beats.

'With these reports before him the Ranger would then be in a position to submit recommendations to the Commissioner in regard to the closing of a district for a limited period, or to prohibiting a particular species of game from being killed in a specified district.

'At the present moment no one is allowed to kill a buffalo in the Ukamba Province, or a greater kudu in the Baringo District, and yet no one, not even Mr. Percival, is in a position to say, or even suggest with any degree of authority, how much longer these two species should be protected. They may, or they may not, have increased in sufficient numbers to warrant a few bulls being killed on payment of a special fee.

'At present the issuing of special licences is in the hands of the Sub-Commissioners of Provinces, as well as the Game Ranger. Most of them are issued by the Sub-Commissioner at Mombasa. This is unsatisfactory, as Sub-Commissioners, being tied to their offices, are not in a position to say where a special licence-holder can obtain a particular beast for which he has paid the fee of £5, and this, not unnaturally, often gives rise to a good deal of grumbling.

'As a case in point: a sportsman, whose time was limited, recently took out a special licence to shoot a bull eland, and was

recommended to go to Makindu. He went there, and successfully stalked three separate herds of eland, and then found that there was no warrantable bull amongst them, and as he had no time to go further afield he left the country without one. Again, two years ago, a well-known sportsman and naturalist, Mr. Abel Chapman, paid £30 in extra fees, but only obtained two of the beasts he had paid for, as he was not aware that he had to go to particular districts to obtain the others, and was under the impression that they might be found anywhere.

'If, therefore, the issuing of special licences was left to the Game Ranger only such disappointments would be fewer, and yet I do not think it would make any difference in the number issued in future. The true sportsman would always be ready to take his chance after being advised, *on good authority*, that the beast he was anxious to obtain was to be found in a particular district.

'F. J. Jackson,
'His Majesty's Deputy Commissioner.

'Nairobi, February 13, 1906.'

Enclosure 2 in No. 220.

Notes on the Game of British East Africa by A. Blayney Percival, Game Ranger.

Notes on Speeches of the Deputation of the Society for Preservation of the Wild Fauna of the Empire received at the Colonial Office, 2nd February, 1905.

'Mr. Edward Buxton,

'1. Revenue from licences alone for 1904–5 was £5,990.

'Expenditure £354.

'2. The Boer colony. During the early part of 1904 and again early in 1905 some parties did cross over into the reserve, but I have not heard of any since then. Masai scouts have been posted near the point where they usually cross the border, and arrangements made giving the Assistant Collector at Taveta permission to go north of the Tzavo, which is outside his district, should he hear of any further parties. It would take me eight, or even more, days to cross from Nairobi even if I could get news in time. This is one of the parts where an Assistant Game Ranger is needed. Within the last two months this colony has entirely broken up, and its members are either in British East Africa or on their way here.

'3. "The reserve should cover the migrations of the animals."

'The Southern Reserve does this in a most satisfactory way. The Northern Reserve might, with advantage, be reduced in size, but as the country comprising this reserve is hardly under Government control, and is so little known, it would be difficult to decide at present on which to keep as reserve, and which to throw open. An alteration which might prove to be

satisfactory would be to declare the Masai Reserve on Likipia a game reserve, and throw open the old Sugota Reserve, retaining part, at any rate, of the Jubaland Reserve. I should be against any alteration of this sort being made in a hurry, and would rather let things stand as they are for another year until the country is better known, as it would always mean trouble if suitable land for farming or other industries was in a game reserve.

'4. Sale of hides and horns. This I consider the most valuable regulation now in force, and one which should never be relaxed. It has been the hide and horn hunters all the world over who have exterminated the game.

'5. The new Ordinance with regard to ivory over 30 lbs. will quite meet the case in British East Africa. If German East Africa could be persuaded to do the same, or at any rate to stop the export of cow ivory, it would make things very much more satisfactory for us. At present a quantity of cow ivory leaves East Africa *viâ* German ports.

'6. Return of game killed. There is no longer any difficulty in getting returns sent in here, and I think that as a rule a correct return is made.

'7. "The Game Ranger a junior officer." I consider that all but simple cases should be laid before the Deputy Commissioner before proceedings are instituted, as there are so often points worth taking into consideration, where mistakes have been made or the Regulations misread.

'8. Native question I have taken separately.

'9. "Range of game." With exception of the bush antelopes, gazelle and small game. Fifty miles is too small a range. Colonel Delme Radcliffe.

'10. Weight of ivory to be allowed. I consider that the weight decided upon for the new Ordinance—30 lbs.—is quite small enough.

'11. See separate note on native question.'

Enclosure 3 *in No.* 220.

SUGGESTIONS for further Preservation of Game in British East Africa.

Revenue, 1904–05.

Approximate:	
Licences	£5,990
Fines	1,050
Confiscated Ivory	100
	£7,140
Expenditure:	
Game Ranger's salary and expenses	£354

This seems a very small portion of the revenue to be spent on such an extremely valuable asset to the country, and one which is increasing every year, and while it brings £6,000 as revenue in

licences brings at the very least five times as much money to be spent in the country in railway freights, native porters, and the hundred and one things needed for safari. The revenue has improved year by year; in 1903–4 it was £3,650, 1904–5 £5,990, and for 1905–6 I expect over £7,000, with a further increase the year after; this in licences alone.

'Owing to the amount of settlement taking place in and around the game districts, it is absolutely necessary that further steps should be taken to preserve the game. I would propose that two Assistant Game Rangers be allowed, each at a salary of £200; that they should be allowed horse allowance of £36 each, as horses are an absolute necessity, and expenses £100. In addition to this I think that £100 extra should be allowed to the Chief Game Ranger: this to be spent on scouts or police, as the £100 expenses will barely cover the travelling expenses alone and leaves nothing for scouts. At present I am unable to keep more than four natives in permanent employ as scouts. I would propose to station the two Assistant Rangers, one in the Southern Reserve at a point from which he could watch the boundary to prevent poaching from German territory, and also keep an eye on the road across the Seringati, where numbers of travellers to and from German territory pass; the other at Nakuru, in the Rift Valley, from whence he could look after Likipia, Baringo, and Rift Valley. Within a very short time all shooting in the Rift Valley will be on private land, and when this happens sporting parties must go further afield. I believe that south towards the German frontier will become, with Likipia on the north, the favourite shooting grounds.

'My estimate for the protection of game would be:—

Game Ranger's salary	£400
Expenses	100
Police or scouts	100
Horse allowance	36
Two Assistant Rangers at £200	400
Two Assistant Rangers' horse allowance, each £36	72
Two Assistant Rangers' expenses, each £100	200
	£1,308

'As I estimate the revenue for 1906–7 at little short of £10,000, this is still a very small proportion to be spent on preservation.

'In making these suggestions I have not taken the Northern Reserve into consideration at all, as it is impossible to do anything to protect game until the country comes under the Administration in a more direct way. At present the Closed Districts Ordinance prevents stray prospectors and traders from going up there as well as the Somali and other natives, who were accustomed to trade or shoot ivory.'

'THE TSETSE FLY AS A DISEASE-CARRIER.

'BRITISH CENTRAL AFRICA.

'The Big Game Question.

'To the Editor of the *Morning Post*.

'Sir,—May I crave your indulgence in order to make a few remarks in reply to a letter on the above subject in your issue of the 11th inst. by Mr. Ralph A. Durand, in which the writer assumes that the protection of big game "involves protection of the disease-spreading tsetse fly"? For several years past I have paid special attention to the tsetse fly question, and should your correspondent care to consult my *Monograph of the Tsetse Flies* (1903) he will find several pages devoted to the "Association of Tsetse with Big Game," as also copies of a number of letters written by various authorities to Lord Lansdowne (then Foreign Secretary) in 1901 on the subject of the supposed connection between tsetse and buffalo. Although it is perfectly true that in South Africa the extermination of big game has resulted in the disappearance of tsetse from many localities in which they formerly abounded, in other parts of Africa, where other species of the tsetse occur, the flies seem to be less closely associated with wild animals. As a general rule, as stated in my book (page 7), tsetse are "confined to damp, hot, low-lying localities, either on the borders of rivers or lakes, or at any rate not far from water. Cover in the shape of more or less thick bush or forest is essential, and the fly is not found on open plains." Writing from "The Residency, Zomba, British Central Africa Protectorate," to Lord Lansdowne, on September 30, 1901, Mr. (now Sir) Alfred Sharpe, his Majesty's Commissioner and Consul-General, said: "Tsetse are not found (in British Central Africa) in open plains, although such plains may have large quantities of game on them, and in spite of the fact that at the edges of the plains, where forest abounds, tsetse are found. It would appear, therefore, that what regulates the presence of tsetse fly is the description of the country almost as much as the abundance or scarcity of game." Consequently it is more than doubtful whether, as your correspondent appears to suppose, the Elephant Marsh in British Central Africa acts as a tsetse fly as well as a game reserve. It ought not to be difficult to prevent the latter and the surrounding districts from

being overrun with lions; but before signing the death warrants of a number of beautiful and harmless animals, and so rendering themselves liable to the censure of future generations happily less purely utilitarian than the present, it behoves us, even at the risk of being stigmatised as "arm-chair faddists" by the *Central African Times*, to see that we do not act hastily, and that before taking an irrevocable step we are quite sure of our facts.

'In speaking of "the tsetse fly" Mr. Durand is apparently unaware that no fewer than eight species (or kinds) of tsetse flies occur in Africa, so that to refer to them as though there were only one species is as misleading as it would be to speak of the four different kinds of British wild pigeons as "the pigeon." Furthermore the only species of tsetse fly as yet definitely associated with sleeping sickness does not, so far as our present knowledge goes, exist in British Central Africa; and, on the other hand, in Uganda, where this species (known to naturalists as *Glossina palpalis*) is abundant on the northern and eastern shores of Lake Victoria, it does not appear to be dependent upon big game for its subsistence. Whether the three species of tsetse found in British Central Africa are capable of conveying the parasite which is the cause of sleeping sickness has yet to be proved. Meanwhile, in the present state of our knowledge (or ignorance), the most stringent precautions should certainly be taken to prevent cases of the disease, even in its initial stage, from being introduced into a district free from the malady but infested by any species of tsetse fly.

'Yours, &c.,
'Ernest E. Austen.

'British Museum (Natural History),
May 17.'

'To the Editor of the *Morning Post*.

'Sir,—As a hunter of large game during the seventies, when South Africa swarmed with game, I can endorse what Mr. Austen says in his excellent letter on the big game question, which appeared in yesterday's issue of the *Morning Post*.

'It goes without saying that tsetse fly were not found in the high-lying tracts where white-tailed wildebeeste, blesbuck, and springbuck abounded, but there were also low-lying tracts in which the larger varieties of game abounded, and yet there were no tsetse amongst them. For instance, buffalo once abounded in the Tugela thorns of Natal and in the Inkandhla bush where Bambaata is now being pursued, and yet there never were any tsetse in that region.

'Elephants were once plentiful in the low-lying eastern region of Natal, where there never were any tsetse. In Amaswazi land, between Jozann's and the Usutu, were ridges slightly elevated above the surrounding country. These were somewhat less densely bushed than the rest of the country. I have there shot

buffalo, eland, roan antelope, koodoo, sassaby, waterbuck, impalah, blue wildebeeste, zebra, and other varieties, but I never saw a tsetse fly there, and I never lost oxen, horses, or dogs there from the bite of the tsetse.

'I have no doubt that in the far interior similar tracts, abounding with game but devoid of tsetse, could be found, in which game could be preserved, without encouraging tsetse fly or running the risk of spreading sleeping sickness through their agency.

'Yours, &c.,

'CHAS. M. D. STEWART.

'34, Palace Mansions, Kensington,
May 19.'

LETTERS FROM SIR JOHN KIRK, K.C.B.

Sir John Kirk, has addressed the following letters, which deal with the subject, to a member of the Society:

'You have asked me in what way the wild animals of Tropical Africa can best be saved from destruction, and in how far their preservation is likely to affect European undertakings.

'I must, therefore, try shortly to explain the views formed by me after a long African experience.

'When I compare the abundance of game met with in Africa half a century ago with the limited amount now to be seen, and if we reflect that this great change has come about chiefly within the last few years, we must feel that if steps are not taken at once many interesting kinds of animals will have disappeared, to follow the quagga, the white-tailed gnu, and white rhinoceros of South Africa.

'Game laws may for a time protect certain species, but it is only by creating *game reserves* or *sanctuaries*, within which, unless for administrative purposes, wild animals are not hunted, that the Fauna as a whole can be saved.

'Such reserves, to be effectual, must be chosen in localities suited to the game and where they will least interfere with other undertakings, such as mining or agriculture. To the passage of a railway through a reserve there can be no objection, since thus the public are afforded the best opportunity of enjoying the sight of wild animals in a native state. Such a sight, for instance, as the Uganda Railway affords where it crosses the Athi plains is nowhere else to be found, since passengers can look on herds of wild zebra, antelope, gazelles, or ostriches any time the train passes.

'A game reserve should, however, be selected so as not to include a locality infested by the tsetse fly near its outer border. The tsetse fly (*Glossina morsitans* and other species), which carries the germs of disease from wild animals to domestic cattle, horses, &c., is fortunately limited to fixed localities which it never passes beyond; so that, although it depends upon the presence of game

in these localities, it never follows the wild animals if they are driven away, so that no danger need be feared that if game is protected the deadly tsetse fly will necessarily be present. What is required is that a fly-belt of country ought not to be on the outside of, or near to, a preserve. Thus there is a part of the Uganda Railway which passes through tsetse-fly country before reaching the Athi plains above referred to, in which the game ought not to be protected, since the only known means of getting rid of the tsetse fly from its habitat is by the destruction of wild animals on which it lives and from whose blood the seeds of disease are derived, which, if injected into a domestic animal, causes death through *Trypanosomiasis*, the domestic animal not being immune to the influence of the blood parasite, as are both man and the wild animals of the country.

'It may, however, be said that it is of little use creating game reserves from which European sportsmen are excluded unless the natives are equally debarred from killing game. If we reflect, however, how little damage the most expert native huntsmen were able to produce upon the herds of game seen by the early explorers, we shall understand that it has only been since firearms were introduced and the sale of skins or trophies encouraged that the native has produced any appreciable diminution of the game.

'Already, by international agreement, modern firearms are not sold to natives and the trade in gunpowder is limited. There are other good reasons why firearms of every description should not be allowed to pass into native hands, so that no difficulty can arise in limiting the indigenous population to their old methods of hunting by means of the spear, bow and arrow, nets, and pitfalls, with which, so long as the inducement of selling the skins and trophies is not offered, no injury can arise to the game. We already have in some of our African protectorates laws which make the sale and export of skins and horns of game illegal, unless obtained by the holders of shooting licences, so that the temptation of killing more game than is needed by the native as food will not arise.

'These are a few of the observations I would wish to make, and I sincerely hope you may be successful in getting steps taken to preserve the native Fauna, which we can only regard as held in trust, and in saving the many and beautiful forms of animal life still so fully represented in our own Tropical African possessions.'

. . . . . .

'The cry against the game reserves as the possible spreaders of the fly is nonsense. The fly never follows the game, although it will come back to old haunts from which it has been expelled by the temporary absence of the game on which it fed: that is, the fly has only certain localities in which it lives and to which it is limited.

'From this it follows that a game reserve should not include a fly belt near its border, and a public road or railway through a game reserve should avoid a part in which the fly exists.'

THE TSETSE FLY AND SLEEPING SICKNESS.

'Chelsea Gardens, Chelsea Bridge Road, London,
December 13, 1906.

'Dear Sir,—My friend Mr. Gillett, F.Z.S., has asked me to write to you on the subject of the relation of big game in Africa to sleeping sickness and other "tsetse-fly diseases." In discussing this subject, it is necessary first of all to be quite clear about the facts, and at the risk of giving you information about things you know already, I will begin by setting forth as briefly as possible the principal facts known about these diseases.

'Sleeping sickness and similar maladies are caused by the presence in the blood, or other body-fluids of the affected subject, of a minute organism with very definite peculiarities, belonging to the genus of protozoa termed by zoologists *Trypanosoma*. Hence these organisms are commonly called "trypanosomes," and the diseases which they cause "trypanosomiasis." Many species of trypanosomes are known, parasitic on vertebrate animals of all kinds, from fish to man, and the majority of them are quite harmless to the animals they infest, but there is a group of pathogenic or disease-producing trypanosomes which cause trypanosomiasis of several kinds. In the African continent there are two trypanosomiases of importance: (1) that of cattle and horses, commonly known as the "nagana" disease; (2) human trypanosomiasis, which manifests itself as (a) Gambia fever, so called, (b) sleeping sickness. It is probable that (a) is simply the early stage of (b), though it may not get beyond the earlier stage in all cases. These two trypanosomiases ars caused by different species of *Trypanosoma*; the parasite of nagana is named *T. Brucii*, after its discoverer, Col. Bruce; the trypanosome of sleeping sickness is named *T. gambiense*.

'These two species are distinguished mainly by their effects. When one injects a given species of trypanosome, say *T. gambiense*, into various animals, some, like the monkey or rat, take the infection and are *susceptible*; others, like the baboon, do not take it, and are *refractory*. It is highly probable that man is refractory to *T. Brucii* of nagana; the experiment has never been made directly, but it is common for people, in a given region of Africa, to have all their cattle, horses, and dogs killed by it, while no human being has ever been known to contract the disease. And on the other

hand, cattle (*Bovidæ*) appear to be without exception refractory to inoculations with *T. gambiense*.

'In Africa both nagana and sleeping sickness are transmitted by the bites of certain species of tsetse-flies, the genus *Glossina* of zoologists. Nagana is carried chiefly by the species *Glossina morsitans*, *G. pallidipes*, and perhaps *G. fusca* and others; sleeping sickness by *G. palpalis*. Hence these trypanosomiases have been termed in a general way "tsetse-fly diseases." The tsetse-fly is quite harmless in itself; it is merely the carrier of the infection: that is to say, if it has bitten an infected subject, it is capable afterwards of inoculating a healthy subject with the puncture of its proboscis.

'This, of course, raises the question as to where the infection comes from in the first instance. In the case of sleeping sickness this question cannot at present be answered. It is highly probable that there is some wild animal which harbours the parasite, and from which the fly brings it to man; but this "natural host" of *T. gambiense* is at present hypothetical and has not been discovered. The fact mentioned above, however, that *Bovidæ* are immune to inoculations with *T. gambiense*, makes it *in the highest degree improbable* that the buffalo can be accused of any connection with sleeping sickness. The general distribution of this disease suggests that it has no connection with big game at all. In Uganda it occurs only as a disease going from man to man; the question of its origin must be studied, apparently, in regions further west, perhaps on the Congo, where it is endemic. At present, however, we can only make negative statements about its origin, except where experimental evidence shows us that certain animals are immune to it, evidence which enables us to narrow the field of inquiry, and to exclude, I think I may say, all *Bovidæ*, and therefore also the buffalo.

'The case of nagana, on the other hand, is quite different. There exists definite evidence to show that *Trypanosoma Brucii* occurs naturally in wild game and that the tsetse flies bring it from game to domesticated animals. In the first place, trypanosomes resembling *T. Brucii* are to be found in the blood of game. I have in my possession slides of the blood of wild buffaloes showing such trypanosomes. In the second place, Bruce was able to produce nagana in healthy domesticated animals by inoculating them with the blood of freshly-killed wild animals. The blood of eight buffaloes, injected each into a different dog, infected one of the dogs; with 13 wildebeestes' blood, 3 dogs were infected; with 4 koodoos' blood, 3 dogs were infected; and other infections were produced with the blood of a bush-buck and of a hyæna. Hence there can be no doubt that the parasite of nagana occurs naturally in wild animals, to which it appears to be innocuous, though producing fatal results when inoculated into domesticated animals.

'To sum up: there is no evidence of any connection between sleeping sickness and big game; the evidence that exists is all

against any such connection, at least so far as buffaloes are concerned. On the other hand, there seems to be no doubt that the big game represents a natural "reservoir" for the nagana parasite, from which it is carried by tsetse flies to domestic cattle.

'I must apologise for the length of this letter, but I wish to put the case as clearly as possible. I shall be glad to answer any further queries in my power.

'I am, dear Sir, yours faithfully,

'E. A. MINCHIN,

Professor of Protozoology in the University of London.

'Rhys Williams, Esq.,
Secretary of the Society for the Protection of the Fauna of the British Empire.'

BRITISH CENTRAL AFRICA.

Sir Alfred Sharpe, C.B., has favoured us with the following observations on the Game Reserves within the Protectorate of which he is the Chief Commissioner.

'Government House, Zomba: July 17, 1906.

'(1). The *Shirwa Reserve* referred to by Mr. Hynde *no longer exists*, so we can put that out of the question.

'(2). The *Elephant Marsh Reserve*, as now kept up, contains only one fifth of the area formerly demarcated by Sir Harry Johnston, and this small portion is kept up entirely on account of a herd of buffalo, about 200 in number, which, so long as I am in this country, I will never consent to see slaughtered.

'(3). The *Angoniland Reserve* is far away from any European industry whatever, and has been established on account of its being the only part of the country where we have any number of elephants left. There are possibly 1,000 there, and so long as I am in British Central Africa I shall endeavour to protect them.

'There is no tsetse in the Elephant Marsh now reserved, and there is no tsetse in or anywhere near the Angoniland Reserve. So much for tsetse fly, sleeping sickness, cattle disease, &c.

'With regard to lions, I am totally at a loss to know how these affect the question of game reserves. There are, of course, lions in Africa, as there are tigers in India. If there were any means of getting rid of them we should all rejoice. I know of no means of exterminating them myself, nor, I suppose, does Mr. Hynde or anybody else. His theory that the Elephant Marsh or any other game reserve keeps up lions is totally incorrect. Anyone can go and shoot lions in reserves or elsewhere if they choose, and the small amount of game in the Elephant Marsh has absolutely no effect whatever in keeping up lions in that district. All the Shiré River Valley is a great lion country and always will be. If there were any tsetse at all of any description in any of the ground now forming part of game reserves here, I should feel that there might be some ground for opposition to game reserves, but there are not. I have no objection to anyone shooting hippopotami if they wish. They are not reserved in any way.

'There are no cotton plantations whatsoever on the eastern

bank of the Shiré where the Elephant Marsh Reserve is. Mr. Hynde's remarks, therefore, about buffalo and cotton plantations are apparently a stretch of imagination. On the west side of the river there is a cotton plantation near to Chiromo, but there is no reserve on that side.

'The Elephant Marsh has never been shot in since its establishment in 1897, except on one occasion when I allowed Lord Waterford to shoot one buffalo for his collection, and Dr. Davey to shoot one head for the purpose of ascertaining if its blood contained any trypanosomes or other germs.

. . . . . .

'Zomba, British Central Afria: October 13, 1906.

'The reduction of the area of the Elephant Marsh Reserve was made by me for one or two reasons, comparatively recently.

'The Elephant Marsh Reserve included in its original limits a great deal more than the flat river marsh itself. It had within its limits a considerable area of forest and the foot-hills of the Cholo Range. In the Marsh itself—the open Marsh—there is no tsetse fly at all. As soon as the forest is reached there is a certain amount of tsetse, though not much. In the forest there is very little game. Both my idea and Sir Harry Johnston's with regard to the Elephant Marsh Reserve was to secure the safety of the one or two herds of buffalo which frequent the *Marsh itself*. They do not enter the forest adjoining. By reducing the size of the Reserve, therefore, I not only lost nothing in the shape of game protection, but did away with any possibility of reasonable objection on the part of settlers to the continuation of the present Elephant Marsh Reserve.

'With regard to the Shirwa Reserve, this was made by Sir Harry Johnston, and lies in the plain which exists between the Zomba and Mlanje Ranges. It was a badly situated Reserve; it is all forest, difficult to control in any way, I may say impossible to control without considerable expenditure, and as a matter of fact next to no game in it at all. At the time Sir Harry Johnston made this Reserve he did not know much about what game life existed in it. It is not in any way worth reservation, and although the publication of the Shirwa Reserve has never been publicly annulled, I allow any person to shoot there who asks for leave, and therefore to all intents and purposes it is no longer a reserve.

'The Angoniland Reserve is a much larger one than either of the other two, and, as you are aware, has been created by me recently. It has in it some hundreds of elephants and a certain amount of other game. It is quite free from tsetse fly, and in a very nice and pleasant climate. It is almost *uninhabited*.

'With regard to this Protectorate, game licences do not bring us in anything approaching the revenue mentioned for East Africa. The total amount received by game licences last year

was £867. The two Reserves were very carefully watched. The Elephant Marsh Reserve is extremely well situated, as there is a Government Station at Chiromo south of it, and an excellent and reliable Native Chief at the north end of it, who is allowed to shoot one or two beasts every year, and he acts as Game Ranger. He is informed immediately if any person fires a gun in or near the Reserve. The Angoniland Reserve, in addition to having two Government Stations in its vicinity, has two native Game Rangers —Headmen who are paid an annual sum each, and are keen about arresting any poachers. The only poachers in it are occasional native marauders from Portuguese territory.'

Major Stevenson Hamilton, *Warden, Transvaal Game Reserves* on

OPPOSITION TO GAME RESERVES.

Most enterprises, however generally beneficial they may actually be, are apt to meet, from some quarter or another, with opposition of a greater or less degree of intensity; and the movement for the preservation of big game, which may be recognised as the outcome of the increasing protest on the part of latter-day civilisation against the ruthless and often wanton destruction of some of the fairest works of Nature, is unfortunately in no way an exception.

It may therefore not be inapposite to examine briefly some of the quarters from which such opposition springs, as well as to enumerate the favourite arguments used in decrying game preservation, or, perhaps it should rather be said, game reserves, for few persons are found who will admit, at all events in theory, that they are in favour of the extermination of the Wild Fauna of the Empire.

As time goes on it becomes more and more clear to anyone having the opportunity to study the matter that in a country such as Africa—especially in those of our possessions there which contain, or are in process of acquiring, any considerable population of settlers, amongst whom there cannot fail to be a minority, perhaps a small one, whose consciences do not prick, to any appreciable extent, when the matter of evasion of game protective ordinances is in question—laws of this nature, however carefully framed and however excellent in themselves, are of little avail unless they can be practically enforced, and this can only be done in a wild or a semi-wild country by the setting aside of areas in which killing of game is absolutely prohibited, in which traffic can be regulated, and which are of a sufficient size to allow for the annual migrations or changes of pasture of the animals contained in them. These areas must be suitably guarded by an adequate staff of officials, whose duty it must be to see that the terms of the regulations are complied with. Above all things, no exceptions should be permitted, such as allowing privileged persons to shoot within them, as this, by arousing discontent among the less favoured portion of the population, is pretty sure in time to work havoc with the scheme.

In the Transvaal the experience of four years has conclusively demonstrated that, in spite of an excellent and comprehensive set of game laws, and the presence of posts of mounted police, part of whose duty it is to see them enforced, and who in fact do their very best in the matter, there is, in the up-country districts, outside the game reserves, very little protection afforded to the game in general, and very large quantities of royal game are annually killed under circumstances which make it almost impossible to bring home the offences to the culprits. (The Transvaal Game Protection Association propose the appointment of special travelling game inspectors, but lack of funds has so far not admitted of this.)

Now amongst any pioneer population, or any population which has not long emerged from the conditions prevalent in a new country, there is certain to be found no inconsiderable number of persons who in the past, either in that particular country or in some other part of the Empire, have been in the habit of wandering freely about, rifle in hand, and perhaps making a livelihood almost entirely by hunting and trapping; some of these are slow to recognise that the old state of things is passing away, and are sore at the innovations which render their former pursuits impossible. Younger men and newcomers may, some of them, likewise cherish a grievance that the untrammelled liberty to shoot where they like, and what they like, and as much as they like, open to their predecessors, is denied to them. The prospect of game increasing almost under their eyes within a neighbouring reserve, while less plentiful in places to which access is free, stimulates the fancied sense of injury felt by these individuals, and they consequently set their wits to work to devise some method of getting the obnoxious state of affairs altered.

It is hardly necessary to say that the *sportsman*, whatever his previous experience may have been, gladly lends himself to help carry out any project for the benefit of the fauna of any country in which he happens to find himself, whether he is resident or non-resident, or whether or no he happens to be from circumstances entirely precluded from taking part in the pleasures of the chase. It is not with the sportsman that we are concerned, but rather with those who fancy that their livelihood has been interfered with, as well as with the only too numerous section whose sporting instincts are undeveloped, or perhaps stunted. There are others again, possessed of a temperament which is roused to antagonism by the mere fact of a particular portion of country being forbidden to the general public for any reason. Although they may never in their lives before have experienced the smallest desire to go there when it was open to them to do so, the mere fact of restrictions having been imposed fills them with an ardent wish to proceed thither at once. The land in question is immediately pronounced to be the very best in the whole country for settlement; there are untold sources of wealth being kept shut up by the authorities, traders and farmers have only to arrive there in order to attain as

if by magic to unexampled prosperity. Of course, if one man is allowed to roam about or to settle in a game reserve, why not another, and as under the circumstances it might be unreasonable to deny the right to carry firearms as a protection against predatory animals, rifles would have to be allowed; speedily would follow the complaint that, as, owing to the distance from civilisation, it was impossible to obtain any meat, white men were being confronted with starvation in the midst of plenty, and that consequently reasonable shooting for food should be permitted, it might seem unjust to deny this privilege, and where would it end?

The mere fact of irresponsible persons being allowed facilities to enter a game reserve equipped with firearms, means very strict supervision, only to be adequately carried out by a very much larger staff than is commonly available. In fact, remove all restrictions as to traffic, and a game reserve becomes one in little more than name, or can only be properly maintained at a prohibitive outlay.

That a game reserve hinders the development of a country is an argument which will seldom bear investigation.

No government of the present day wants to crowd out white settlers in order to maintain a paradise for wild animals, and in fact sites would appear to have been usually selected where the scantiness of the white population, and the abundance of other land available negatived any likelihood of their being required for a very considerable time, even when not chosen in such malarious or arid localities as utterly precluded any idea of a European making his home there.

A very favourite weapon which comes readily to the hand of the agitator against game reserves is the statement that these institutions foster and encourage the breeding of carnivorous animals, and in this manner constitute a public danger, as the beasts of prey will wander out and ravage the surrounding and inhabited districts.

Now it must surely be obvious that the increase of game in any given district must tend, not to drive away the carnivora, but rather to retain them inside, where they can obtain a good supply of their natural food; there can be little inducement to them to leave these happy hunting-grounds, in order to pick up a precarious livelihood further afield. Even when left entirely to themselves, predatory animals never increase out of proportion to the game which provides their food, as is sometimes ignorantly stated, always supposing that man does not step in and, by destroying the game, unduly upset the balance of Nature. The latter indeed may be trusted to be a tolerably good regulator of such matters, and if she suffered her laws to be so inefficiently drawn up as to allow the purely flesh-eating animals to be equally prolific with the others, surely, long before man made his appearance upon the scene at all, the latter would have entirely disappeared, and the former been reduced either to altering their diet or to preying upon

one another. But, so far from anything of the kind having occurred, our first records of uninhabited districts show them more often than not to have been teeming with animal life of all kinds, and yet, previous to the appearance of man, especially of man equipped with fire-arms, such creatures as the lion, the leopard, and the hunting dog must have led an existence very nearly ideal.

When the game has, through the efforts of man or by the agency of some epidemic, become unduly reduced, then the carnivora, driven by hunger, do no doubt become a very real danger, both to the resident and to the traveller; but, given ordinary conditions, they will never in such a place as a game reserve assume the overwhelming numerical proportions sometimes credited to them.

Moreover, if the officers responsible for the well-being of the reserve are zealous in doing their work, the reduction of carnivorous animals to, and their retention within, proper and moderate limits ought to present no insuperable difficulty if carried out in a methodical manner; so that, far from increasing, they should decrease considerably in numbers, while, on the other hand, the game multiplies unhindered. Thus, unless actually driven out by persecution, it seems most unlikely that the decrease of competition would act otherwise than as an incentive to them to remain within their accustomed haunts.

Personally, I am convinced that predatory animals in a wild state tend to increase relatively slowly. It is sometimes argued that because the *Canidæ* and the *Felidæ* give birth to several young ones at a time they must therefore increase, if not severely kept down by artificial means, at a greater rate than any of the species of herbivorous animals, which, as a rule, produce only one offspring per annum. Especially is the fecundity of the African hunting dog often exaggerated, owing to the fact that as many as a dozen young ones are sometimes found collected in one burrow. Females killed, at least in this country, have, however, never been found to contain more than three or four, and the association of a large number in one spot would seem to more probably indicate the offspring of several mothers. It is also exceptional to see more than two or three young animals in a pack of, say, a dozen wild dogs, which would not be the case were the litters larger.

Lionesses, again, have generally three cubs at a birth, but the best authorities agree that seldom more than one or two of these see maturity. Owing to the comparatively short period of gestation of these animals and the early age at which the cubs are weaned, it might be inferred that in a wild state, as in captivity, they would breed annually. But here the difference imposed by environment displays itself; before the mother can turn her attention to new family cares the youngsters must be taught to be independent, to hunt and to kill animals larger than themselves unaided, and the process of instruction no doubt takes up some considerable time. A lion cub of a year old is still relatively helpless; his large canines are only just beginning to obtrude their

points, and the milk teeth which he still uses are weak and fragile things. At that age, though as big and heavy as the biggest dog, he still has a long time before him ere he is capable of taking the field for himself free from maternal guidance. The care and trouble taken by a lioness and her mate in teaching their family to kill game neatly are well known, as well as the amateur results which attend the early efforts of the latter. The tuition could not be successful if the lioness had the care of another and younger family to take up her time and attention.

As tending to illustrate the above remarks, I might quote some cases which have come under my own observation recently—namely, within the last fifteen months or so.

1. August 1905.—One male and three full-grown females, with two small cubs, not more than one month old; no half-grown animals.

2. October 1905.—Lioness with two large cubs (about fourteen months old); she was giving no milk, and contained no fetus.

3. November 1905.—Lioness in prime of life. She was one of a family of full-grown animals, conditions as in last case; it was so far past the cubbing season that had there been any of that year's cubs they would have been sufficienfly large to have been running with the others. A young lion about three years of age was killed out of same troop. The inference drawn was that he, and perhaps another of the younger animals, represented this lioness's last litter. Of course, it was just possible that an intermediate litter might have all died.

4. August 1906.—Two lionesses with four cubs, all of similar size; one secured was about a year old; had any cubs been born to either of these lionesses at a later date they could not, having regard to the time of cubbing, have been more than a month old, and therefore their mothers would not have left them, but this party left the district entirely, in which they had been established for some time.

5. September 1906.—Two lionesses lying up, with three cubs six weeks old; the mother of the cubs was an oldish animal; the younger lioness, though full-grown, was young, in fact the spots underneath were still quite distinct. Natives said that they had been hunting together for some considerable time, sometimes accompanied by a male, who was not upon this occasion seen, but that the females, at all events, invariably returned during the day to the patch of bush where the cubs were; this was also demonstrated by the tracks. To me the evidence seemed to point to the younger lioness being the survivor of the older one's last family. The former was not in cub, though her age was sufficient to have allowed of it.

6. October 1906.—Lion and lioness, accompanied by one large cub about fifteen months old. The lioness had no milk, and contained no fetus.

The conclusion to which I have been brought from these and

other cases that have been reported to me is that lions in a wild state do not breed nearly so often as is generally believed.

It is a matter which has interested me very much, and one which I have found gives rise to a good deal of discussion.

Not long ago a rather well-known authority upon big game shooting assured me that wild lionesses had cubs annually, and based his assertion upon having shot one which was accompanied by two large and two small cubs. However, on going into the matter it transpired that the lioness was one of a troop which scattered in all directions, and he admitted that the larger cubs might easily have been the offspring of another lioness, and in the general confusion have followed the mother of the smaller ones.

Lions appear to be extremely regular in their breeding seasons in the Eastern Transvaal, and cubs seem to be born always late in July or early in August.

A third argument sometimes affected by opponents of game reserves is that they are calculated to increase or reintroduce the tsetse fly, and perhaps in this manner bring in sleeping sickness.

Now in this country the tsetse disappeared with the rinderpest ten years ago, and has not been seen or heard of since. It could not have disappeared by reason of the game being exterminated, because, as a matter of fact, the game here suffered in a much less degree from the plague than was the case further north, and though of course many buffalo died, still a not inconsiderable number survived. The dense bush is ideal cover for the fly, which in the old days swarmed everywhere, and had it not all, as I hold that it must have, died from the effects of sucking the blood of the diseased animals, it would have made itself felt long ere this.

Living as I do in the heart of the former tsetse country with a considerable amount of livestock, no one would have experienced its effects sooner than myself.

Adjoining Portuguese East Africa is now equally free from the fly with the Transvaal.

Therefore the presence of big game even in a habitat suitable to this scourge does not necessarily imply the presence of the latter. And as all thick bush containing game did not, in the past, invariably harbour fly, the question suggests itself, what other conditions were necessary for its presence?

Conversely, has it ever been conclusively proved that it is entirely dependent upon big game for its subsistence? The experiences of many hunters would at least testify that it is by no means averse to a change of diet.

In South Africa it was commonly said to be invariably associated with big game, because the pastoral natives of the country, like the white men, preferred big open grazing-grounds for their stock, while the tsetse affected thick bush, which also happened to be the locale of certain species of wild animals.

Supposing, as has been suggested, certain reserves were to be thrown open, and the game exterminated within them: is there

any really sound reason for believing that the tsetse fly would thereby become eradicated? It seems to me more than possible that the desired end might not be attained, and a great asset lost to the country without any compensating advantage. Moreover, out of several species of tsetse, do all act as transmitters of the germ of sleeping sickness, or is it, as in the case of the mosquito, that one or more kinds are noxious, and the others harmless?

As for the disease transmitted by the fly to domestic animals, but to which game is immune—much as the native is in his own district to the attacks of malaria, from which a European is apt to suffer—is it absolutely known that the latter forms the host? It must be admitted that certain *prima facie* evidence points to this being the case, but then are all species of game hosts, and if not, which?

Then, given that a certain species, or several species, harbour the bacilli, are these bacilli continuously resident in the blood of the individuals irrespective of the presence of the fly? Or would the fact that fly had disappeared from a district render, after a certain lapse of time, the older animals, or, failing them, the younger generation, 'clean,' so that a fly subsequently introduced, otherwise than in company with a germ-laden animal, would, after biting them, not become a transmitter of disease?

It would appear only reasonable that these questions should be gone into more closely than they have been hitherto, before notice is taken officially of what may perhaps be idle and self-interested clamour.

There is sometimes a general looseness apparent in the discussion of all such questions by a certain class of up-country dweller in our various possessions, which, good fellow though he may be otherwise, betrays a lack of reasoning power, and a singular want of close observation in proportion to his opportunities.

The arguments against reserves which I have touched upon are those which are most commonly used, and albeit opponents of the system do not perhaps display much ingenuity or originality, the objections have a specious sound, and, when backed up by clamour, are perhaps capable of only too easily leading astray the opinions of those having no actual personal knowledge of conditions obtaining on the spot.

So far as my own experience goes, I am convinced that these complaints seldom, if ever, express the real desires and feelings of those making use of them.

I have not touched at all upon the native question as bearing upon game reserves, important though it is, as it would require an article to itself, and, moreover, native manners and customs vary so much in our different possessions that regulations made in one would probably be inapposite in another. It is sincerely to be hoped that all sportsmen and lovers of Nature will continue to stand firmly together in strenuously opposing all reactionary policy regarding that rich heritage of wild life which is still ours to do what we will with.

15/11/06.

THE WHITE NILE REVISITED.

By E. N. Buxton.

In 1902 I followed the White Nile for some four hundred miles above Khartoum, and, after four years' interval, at the beginning of the year 1906 I again sailed up the river. On the first occasion we were not allowed beyond Fashoda, but things have marched since then, and this time we enjoyed some further liberty, and spent a month in the neighbourhood of Lake No and on the affluents which join the main river near that point.

It occurred to me that from the point of view of our Society a few notes on the game and inhabitants might be of interest.

The most marked change I noted, immediately on leaving Khartoum for the south, is in the great increase of cattle and riverside population. It is not too much to say that the banks of the White Nile from Khartoum southwards swarm with herds of sheep and cows. Doubtless the owners do not all live close to the river, but bring their flocks to water and to feed on the short grass of the banks from considerable distances inland. The herdsmen appear to be mainly Arabs. This year they had taken their herds far to the south of their customary limits. We found them everywhere on the west bank as far south as Melut, and the Shilluks seem to have retired somewhat before them. Between Renk and Kaka it was impossible to move a mile without encountering herds and temporary Arab villages. Until recently, there was much game on the western bank south of Jebel Ain. The result of this immigration is seen in its diminished quantity near the river, and the sportsman must travel considerable distances in order to find it and then it is in smaller numbers.

On our return journey down stream we made several halts to give my companion the opportunity to shoot a buffalo. We saw fine herds on the eastern bank, generally accompanied by flocks of the buff-backed egret, which birds are fond of perching on the animals' backs. But that side is Reserve and is of course forbidden ground, and we found no sign of them on the western side. The same was the case with white-eared cob, of which we saw great herds in tantalising proximity, but none on our bank. Of roan we saw a few, and waterbuck were also scarce. From the huge flights at sunset of storks, crested cranes and other fowl, to the

NUER MEN

west, we judged that the lagoons in that direction still contained water, and in this case game animals doubtless find a refuge in such places. We saw but few signs of the visits of heavy animals to the river at night. Any traveller desiring to hunt on the west bank, which alone is open to him until he has passed to the south of the Sobat River, should come provided with transport animals with which to reach inland khors or lakes. Some Selim Arabs are good shikaris. Such men are procurable at Renk. They are apt to tell travellers that they may shoot on the reserved bank, and insidiously invite them to do so on the ground that everyone does it, but I believe infractions of the rule are rare.

The poor hippos have been much persecuted of late, and have almost disappeared from the main stream. At one place on the return voyage we saw a Greek merchant embarking many thousands of dried strips of their hide, from which *courbash* are manufactured in Khartoum. Between that place and Jebel Ain there are now scarcely any hippos left. Further to the south, where the water system is more complicated, they can take refuge in the reed-belt and khors, inaccessible to man, and many survive. At one place we saw a native hippo hunt at the critical moment. They had succeeded in spearing the animal, and were following him in a boat, guided by the bladder which is attached to the spear head. We were near enough to see the hunted beast several times come to the surface and threaten his pursuers with open mouth, but our steamer did not stop long enough for us to be in at the finish. The raiding propensities of the hippos are thought to be sufficient reason for putting them beyond the pale, but on the other hand it may be urged that their high value to the natives both for meat and skin should save them from extermination.

Personally, having hunted in these regions before the Reserve was constituted, I was chiefly concerned to reach the habitat of the rare *Cobus Maria* or Mrs. Gray's antelope—rare, that is, in collections—that very peculiar goat-like waterbuck first observed, I think, by Petherick, consul at Khartoum in the Turkish times, and explorer. By him, at least, the first specimens were sent home, submitted for description to Mr. Gray, a naturalist attached to the British Museum, who named it after his wife; the lady was not, as is sometimes supposed, a great explorer. It is a pity that animal nomenclature is not more descriptive; the 'black antelope' would be a more appropriate name. At Fashoda—which, by the way, no longer exists, as it is now called Kodok and the old mud fort has been levelled down to make a parade ground—we left the steamer and embarked on a native gyassa to enable us to make our researches at leisure. Our first digression was up the Zeraf, but here we failed to find 'Mrs. Gray,' though it was otherwise a fairly good game country. The banks in its lower reaches and for many miles up stream from its embouchure into the White Nile are fairly high and solid, and in places covered with thorn scrub. Here were many signs of elephant, lion and giraffe, though

we saw only one of the latter. Roan, tiang, and waterbuck, among the larger game, were in fair numbers.

The steamers bound south and west have to travel several leagues up this river to seek wood for fuel, and year by year this diversion from the course has to be longer, as supplies are exhausted. It is to be hoped that, under the altered conditions produced by the Atbara-Suakin Railway, cheap fuel will save the remnant of forest.

Returning down stream of the Zeraf we found that it is not very easy for a heavy sailing-boat to escape from a narrow channel such as this in the teeth of a north wind, but this generally subsides towards sunset, when by abandoning the boat to the current a few miles may be accomplished in the course of the night. Prow or stern are continually driving into the reeds, and the progress is less than a mile per hour.

Here we first encountered the interesting tribe of Nuers. Marsh-bred themselves, their lean and long bodies irresistibly suggest the storks and herons by which they are surrounded, particularly when they perch on one leg while the other is drawn up under the body, the spare foot resting against the knee of the leg in use—a very characteristic attitude, and not confined to this tribe. We had been told that their reception of us was doubtful, and indeed their manner is hesitating, arising from timidity, owing perhaps to the treatment they have received from Turks and some Gentiles. Their greeting is a forward wave of the hands, which, to an Englishman, appears to deprecate approach, but is really the contrary. We had no difficulty in establishing friendly relations. The first large party we met was a band of about thirty men and women bound on an expedition to some point in the south. As the women all bore large baskets, it is probable that the object was to fetch doura from their headquarters, to reach which they had to cross the Zeraf river. How they proposed to effect the transit was a mystery—probably by the floating power of ambatch fagots gathered on the edge. We saved them much trouble by putting them across on our upper deck, and to reach it they had to climb a ladder. Some of them were nervous about this, never having had to climb anything but a small tree, but once over they showed their feelings of relief and gratitude by a prancing gavotte in our honour. Some of the women, especially the younger ones, who are generally clean-shaven, enhance their charms by a piece of straight brass wire inserted through the upper lip. This projects three or four inches, and is jerked up and down by the tongue in a fascinating manner, but it would seem to make kissing difficult.

The men are quite nude, well-formed, and immensely tall. In any considerable group of them which gathered about me I generally found some who surpassed me in height by several inches, and I stand 6 feet 2 inches in my stockings. They plaster their hair with a thick covering of whitish mud, apparently composed of wood ashes, and shaped like a Roman helmet. When this is removed, the hair combs out long and silky and is bleached

PAPYRUS

to a tawny yellow. It is suggestive that the beautifully preserved mummies of Queen Hattisu and her husband in the Cairo Museum have hair of the same pale straw colour, which appeared to us to have been treated in the same manner.

The tribe owns herds of great long-horned cattle and subsists largely on milk, but do not kill for meat except on occasions of rejoicing. These cattle are always herded in the villages at night. About sunset the collected dung of the night before is burned to make a dense smudge of smoke as a protection against mosquitos, for which purpose the Nuers also, like the Dinkas, smear their bodies with wood ashes.

Leaving the Zeraf we turned again up the stream of the Bahr-el-Abiad, the local name of the White Nile, and presently found marshes on either hand—green plains of reed grass which broaden to illimitable distances as Lake No is approached. Occasional villages there are, but always far back from the river, probably so placed to avoid mosquitos. We could neither see habitations nor game, which must have been hidden by the reeds if it had been there, but we continually disturbed the boat-billed stork—*Balaeniceps rex*. This strangely quaint bird is placed in the schedule of absolutely protected species, but did not seem to us rare. Moreover, only naturalists desire specimens, and none would wish to eat it.

To find hard landing-places became henceforth increasingly difficult. We sometimes effected a passage through the reeds by sending our crew into them, to beat them down, after which our little Berthon boat would be pushed through or over by main force. I may here observe that we found this little collapsible craft far more manageable from its buoyancy than the clumsy wooden felucca. From the deck of our gyassa we had not the same opportunity of surveying the country for game which the traveller on the high deck of a steamer has, but twice in this part of the river we saw the coveted 'Mrs. Gray' in the distance. The wind being favourable at the time, we noted the position and passed on to Lake No. On the northern bank of the lake and nearly opposite to the embouchure of the Bahr-el-Jebel, which here enters from the south, is a fairly dry plain, upon which were vast herds of leucotys pasturing and some reedbuck. My companion, Sir Alfred Pease, noticed that the latter have a habit of bending their hind legs and sitting half down when surprised.

There is little open water in Lake No at low Nile, and what there is is cumbered with masses of floating sudd. Our reis steered us into a *cul-de-sac*, from which it was a long business to extricate ourselves in the teeth of a high wind. The proper course is to hug the northern bank, if bank it can be called when there is nothing solid. It was at this time very hot, and that, perhaps, accounted for the liveliness of the fish in Lake No and the adjoining rivers. They were continually rising or jumping clear of the surface. Some were of large size. We caught a few with simple lines. Any visitor armed with suitable appliances, especially a

strong trolling-rod, should get a big bag. There were also many snakes taking a bath in the warm water.

We at length reached the mouth of the Bahr-el-Ghazal, and I hesitated to ascend it, as the navigable stream is very narrow, and I doubted the feasibility of returning in the face of an adverse wind; but Mr. Tottenham, who was engaged on measurements for the Irrigation Department, passed in his steamer, going up stream, and promised us a tow on his way back, so we ventured some way. The thermometer stood at 110° Fahrenheit, which is exceptional for February, and the melting moisture of this sudd we found decidedly enervating, while the *Culex fatigans* and other sorts—I think there are at least a dozen species of disease-carrying gnats in this region—were very trying. Very thin, flexible boots reaching above the knee are desirable, with gauntlet gloves to protect the wrists, but all houses and boats used by Europeans should have a refuge made mosquito-proof by wire netting. Considering the number of valuable lives sacrificed in this region from malarial fever, one would think that the authorities would make this an absolute rule. It seems to be now established that a heavy weekly dose of quinine is much more effective as a preventive than a small daily one.

Papyrus had largely taken the place of reeds. It is in itself a graceful plant, though it becomes monotonous when nothing else is visible for days together. Its stems and tufted flower-heads, twelve feet above the surface, are often festooned with masses of purple convolvulus. When the boat drifts close to this swamp-forest, the eye penetrates into watery arbours and small lagoons, in which lesser birds disport themselves. The ambatch grows here also. It reminds one of the mangrove in Florida. The wood is extraordinarily buoyant, and a fagot of it makes a serviceable canoe. The water is too deep for wading birds, but a water-hen scarcely bigger than a sparrow runs over frail surface-weeds, and a minute edition of our blue kingfisher darts about in the shadows. A conspicuous coot, with rufous back and white beak, stands sentry on floating blocks of sudd, while immense flocks of finches dash about overhead with curious synchronised movements.

The solitary Deleb palm, a few miles up the Bahr-el-Ghazal, is a conspicuous landmark. It is a good centre for 'Mrs. Gray's' antelopes, which abound on the banks of the Khor Deleb, but the grass burning was very backward in these wet regions. Moreover, the noise made in splashing through the water makes approach almost hopeless. Doubtless in March or April there would be many burnt spaces, and these animals would be much easier to find. The Khor Deleb is a much wider sheet of water than the true channel, and to a casual observer would seem to be the main stream.

About twenty-five miles up the Bahr-el-Ghazal we made an excursion inland, if it can properly be so called when it was largely through water, often breast-deep. Some way from the main stream we encountered a deep khor, 200 yards wide, of open

GATHERED ON AN ANT HEAP

water running parallel to it. This was probably the continuation of Khor Deleb. We negotiated it by means of the 'Berthon,' which we had carried thus far. It was full of hippos, which are undoubtedly dangerous to small craft in these parts, but we drove them to a respectful distance with a few shots, and crossed in safety. Six miles further on we came to a second unfordable khor, where the Nuers told us were many 'Boag,' the native name of *Cobus Maria*. We saw none, but four very fine bull elephants were standing in the marsh on the opposite bank. If elephants are doomed, I will have no hand in it, and did not shoot, but my daughter endeavoured to photograph them. Unfortunately, though she had carried the camera as high as possible, it had got submerged in some of the deeper traverses and was useless. Other elephants were visible in the distance. We camped on the banks of one of these khors, protected, as we hoped, by gauze shelters from the mosquitos, but they emerged by millions from the cracks in the cotton soil, and, so to speak, took us in rear. There are very fine 'defassa' waterbucks hereabouts, and Pease secured one over thirty inches. The alternate wading and walking on rough cotton soil is extremely destructive to boots and shoes. I endeavoured to replace mine with moccasins of green waterbuck skin, without great success. I suggest for this marsh country an ample supply of canvas shoes with felt soles. However a man may be shod, the noise made in walking through shallow water makes approach very difficult. As a general rule Mrs. Gray's antelopes are hidden when standing in 'um suff,' as the common reed-grass is called, which covers vast expanses, but when a herd starts running a number of black points—the tips of horns and ears—become visible, apparently skimming over the top of the grass like a flight of swallows. Pease attempted several approaches, always with the same result. I preferred what the Americans call 'sitting on a log,' which only needs a stock of patience. I will describe my first successful ambush. Some ant-heaps favoured it. After a considerable interval, I saw a pair of horns approaching. The creature came to the edge of the opening, and after standing sometime at gaze came slowly on across the opening. *Cobus Maria* has a curious gait, carrying neck and head very low, which is part of its secretive habits. This one came within thirty yards before he perceived us and trotted off. Though a male, he had not the distinctive colouring, so I did not shoot. My daughter, lying on the other side of the heap, next perceived a female and kid, which also came close to her. Some time after, Talib's sharp eyes picked up something at a greater distance, and whispered 'Kebir' (big one). Getting another ant-heap between us, we ran in a stooping attitude towards it, and again got into position. A fine pair of horns were visible, moving slowly, and presently a black-and-white body was fully exposed and fell to my shot. It was a good black specimen, the size of an Egyptian donkey, with a very large white shoulder-patch.

Almost immediately several of the sailors from the gyassa appeared out of the long grass. This habit of surreptitiously following a sportsman is dangerous and annoying, and frequently spoils chances. My companion subsequently got his specimen on Tonga Island after a prolonged stalk.

Only one is allowed under each licence, but I was deputed by the Sirdar to procure a specimen for the Norwich Museum, in which I succeeded at a later stage. The species is in no danger, as there are wide regions frequented by them, which are practically inaccessible from the river. The natives hunt them with dogs, concealing themselves in the reeds, and spear them when they rush for cover. We saw some loin-cloths made of the skins of these animals, worn by women. I do not think they are much preyed upon by lions or leopards, at least I saw no tracks of these animals, and it is obvious that these antelopes could not be easily approached by them when they are standing, as is their wont, in shallow water.

The peculiar colour of the old males—nearly black, with a large white patch on the withers is only attained by a small percentage of the herd. At a later stage, in a more open place, I had a good sight of a large herd; I counted seventy, and, as far as I could make out, there were not more than three or four black males accompanying them, the remainder, whether male or female, being fawn-coloured.

We had a strange experience one night when our boat was moored to the edge of the reeds. An enormous host of 'driver' ants invaded our boat, using the stalks of the reeds as scaling-ladders. I was sleeping on the roof of the cabins, but was awakened by sounds of distress. Sir Alfred Pease, sleeping below, had reached out his hands for his water-bottle, when, in a moment, his arm was a crawling mass, and springing from his bed he was instantly covered from head to foot with an army of large black ants, biting furiously; so tight did they cling that their nippers adhered even after they had been swept off. The victim fled for the bath, and was only rid of the pests by buckets of water poured over him, after which he was carried bodily up the ladder to my gauze shelter. In the morning the whole deck and cabins were crawling with a black horde, the large biting ants being accompanied by smaller brown ones—probably females—whom apparently they controlled, but when daylight appeared many left the boat, carrying booty. We traced their beaten road through the marsh. It was crowded with ants travelling both ways. One good effect of the invasion was that the other insect pests which infested the boat were completely devoured. The cockroaches, which were of huge size and very numerous, generally only appeared at night, but such was their terror of the ants that they left their dark places in the day-time, and were manifestly suffering from extreme nervous excitement. It was several days before we finally evicted the last of the invaders. This was accomplished by dabbing paraffin in their haunts. We borrowed it from a steamer to which we were

BAHR EL GHAZAL

THE COSTUME OF THE PERIOD

warped at the time, and our tormentors fled along the ropes to our benefactors.

After this the worst trouble we endured was from our own sailors. At the best it is tedious work to navigate a heavy boat against the north wind. The current is often powerless against it, but if a large piece of sudd travelling down stream can be found and anchored to the boat, she needs must travel without labour to anybody, though slowly. But if the wind is light, progress may be made by tacking and poling. Our men generally had some excuse for not doing this when a favourable opportunity arose. My annoyance with these troublesome children was sometimes converted into admiration when they swarmed to the end of our eighty-foot yardarm, swaying in a gale, to furl the rebellious sail.

NORTH-WESTERN RHODESIA.

THE PRESERVATION OF BIG GAME.

By R. T. Coryndon, *Administrator*.

This matter is no doubt one which has met with much public sympathy, but at the same time it was one of those unfortunate questions which seemed to be no one's business in particular; the stage has, however, now been reached when everyone with position, influence, or a purse should render his need of assistance, directly if possible, but at any rate through the Society which has been formed for this definite purpose.

The Game Law of North-Western Rhodesia has been carefully framed to suit local conditions, and is the result of a study of the South African, Southern and North-Eastern Rhodesian, and many of the American systems. The first General Law was published in January 1905, and amendments were published in the following year further limiting the available number of certain varieties of game which showed signs of becoming scarce. The general provisions of the Game Law are as follows:—All game is divided into four Schedules. Schedule No. 1 consists of game birds and the small antelopes; Schedule No. 2 of the ordinary big game from reedbuck to roan antelope; Schedule No. 3 consists of large and rare game, and includes elephant, rhinoceros, giraffe, eland, koodoo, mountain zebra, white-backed duiker and ostrich; while Schedule No. 4 includes lion, leopard, and so on, baboons, poisonous snakes and birds of prey, excepting vultures and owls.

Game in Schedule 1 can be shot by visitors or residents for a £1 annual licence, termed an Ordinary licence; Schedule 2 demands a Special licence, of which the cost is £5 to residents and £25 to visitors; while the charge for an Administrator's licence, under which game mentioned under Schedule 3 can be shot, is £50 to visitors and residents alike. No licence is necessary to shoot animals mentioned in Schedule 4.

An important provision was that the Administrator had power under the proclamation to define game reserves, to proclaim such close seasons as he considered necessary, and to protect from shooting such animals as he considered in danger of extermination over whatever area and for whatever time he considered to be advisable. He also had power to transpose, when necessary,

animals from one schedule to another, and to endorse upon any licence whatever conditions he considered advisable or necessary.

The export dues were 10*s*. per head for game in Schedule 2, and 20*s*. per head for game in Schedule 3. Elephants are considered immature when carrying tusks weighing less than 20 lbs. a pair. Fines for contravening these enactments vary from £5 to £100, with imprisonment for terms varying from one to twelve months. It is also notified that natives shall be exempted from the provisions of this proclamation.

The first year licences were not limited, for residents were not tempted to shoot more than they wanted while travelling, and it was thought that visitors who undertook the long journey to North-Western Rhodesia would be naturally, or by experience in other countries, sufficiently good sportsmen to refrain from shooting more than they actually required. However, it was unfortunately found that this was not entirely the case, and in 1906 two amendments to the original law were introduced under which (1) the holder of a special licence could shoot only five eland bulls and one koodoo bull in Schedule 3, and in Schedule 2 only five sable antelope bulls and three cows and three zebra; (2) holders of either a Special or Administrator's licence may shoot all game mentioned in Schedules 2 and 3 within an area infected by the tsetse fly, except only elephant, giraffe, and rhinoceros; (3) holders of either a Special or Administrator's licence may export free of cost not more than three heads of each variety of game shot under such licence; beyond such allowance an export duty of 10*s*. per head for game mentioned in Schedule 2, and 20*s*. per head for Schedule 3, is charged.

It must be borne in mind that at any time the Administrator may declare a close season for any game which he considers needs protection, and that he can, whenever necessary, constitute a game reserve wherever he considers it practicable; these are valuable powers.

The territory is a large one geographically, and it still has a quantity of big game; and there is no denying that this, even from a commercial point of view, is an asset of great value. But there is a point of view which differs largely, though not perhaps essentially, from the purely commercial standpoint, and it is that obvious one that, over and beyond the accident of his position, it is plainly the duty of every thinking man to do his best to stem the danger that the advancing tide of civilisation unavoidably carries with it in this direction. The danger lies in the facts that the facilities afforded by rapid communication, the education and consequent arming of the native population, the wide distribution of modern arms of precision, and the ease with which the markets concerned are now reached, shall so affect not only the prosperity but the very existence of the noble heritage we have come into of the herds of the free game of the wild places of the earth, that within not only a measurable, but a short time, we shall lament with tears our eland and sable antelope, our koodoo and

roan as the modern Americans—wise too late—lament the irreparable loss of their bison. Let us be wise in time, and so, while consciously doing our duty in our own generation, lay up for ourselves the gratitude of a posterity which will assuredly reckon our gift at its true worth.

In every country concerned with this question there are, I suppose, various disabilities which make it difficult to deal with the position, and the chief of these in North-Western Rhodesia is that the Administration finds it practically impossible to prevent the natives from destroying what game they care to. Personally I do not think the Barotse kill very much game wantonly, but if so it may be because they cannot, and not that they recognise any obligation in the matter; and it follows that those varieties easily trapped and shot will disappear more rapidly in districts where the natives can obtain arms and powder than the sitatunga, say—a most elusive buck whose home is in the heart of the deep reed swamps.

The paramount chief, Lewanika, however, recognises to some extent the value of the game as an asset, and he has preserved for many years the lechwe antelope in the Barotse Valley proper; when the first expedition arrived at Lealui on the upper Zambesi in October 1897 we were delighted to see many large herds of wild lechwe all over the thickly populated country round the chief's capital, and I need not say that the Administration has done its best to assist Lewanika in this respect. Moreover, at his request a clause was inserted in the Game Law reserving the Diowa district lying north-west from Lealui from being shot by white residents or visitors, and protecting also the lechwé, puku, and sitatunga antelope on the lower waters of the Luena River, and the lechwe and puku in the Barotse Valley itself.

But though we may not be able to protect by enactment the game from the naturally quite unscrupulous native hunter, I am sure that the Administration can rely upon a good deal of support in this direction from Lewanika himself and his Council of headmen. The commercial instinct is strong in these tribes, and once convinced of the real value of the big game they will, with the continual encouragement of the Administration, be, I think, willing to assist in some degree in its preservation from unnecessary extermination.

The most obvious method of securing this end is, of course, by the establishment of adequate game reserves—sanctuaries where game is undisturbed. But the settlement and development of the wild countries has gone ahead so rapidly of recent years that it is to-day very difficult to find areas sufficiently large and carrying much game which do not suffer from one or other of the following disabilities: firstly, that they may at any time be discovered to be sufficiently mineralised, or else of sufficient value for purposes of agricultural development as, to render them liable to expropriation in favour of the miner or the farmer or both; and secondly, that areas which are not liable to such expropriation have usually a

fairly heavy native population already armed and with a certain though a small command of gunpowder, and which it is not practicable either to disarm or prohibit from shooting. The Administration, however, does recognise some responsibility in this matter, and with Lewanika's co-operation may be able to overcome the obstacles.

But, while realising the value of such arrangements, it is necessary to bear in mind a principle the truth of which is obvious: it is that, speaking generally, industrial development cannot be prohibited or restricted in any district in order to preserve the game. By all means let us do all we can to secure our end through the instrumentality of preserves, but when it becomes necessary to throw any reserve open to the farmer or the miner, the wild game must do its share in the development of the country: the real claims of the settler must come first. I do not doubt that even under circumstances of this sort, some arrangements could still be made by means of close seasons, strict limitation of number and sex of game allowed to be shot under each licence, and so on, to ensure the continued existence o. a large proportion of game even in such an expropriated area, but the principle must be acknowledged that the *bona fide* settler's claims must have the preference.

The great factor—at any rate over a large portion of Central Africa—which connects the two questions of the preservation of big game and of industrial development is of course the tsetse fly. Briefly, fly exists only where there is some quantity of game, and so long as the fly remains in an area it is a very efficient guard to the game itself, so far at any rate as the tide of civilisation as represented by the farmer and the miner is concerned: the white hunter and the resident native can be controlled to a great extent by law in or out of the fly country, but when the necessity arises for the industrial development of a fly-infected district the first step must be to clear away the fly, and this can, generally speaking, be only effected at the cost of the game. I refer, of course, not to early stages of the prospector's and miner's work, for many mines are now being developed in fly country in Rhodesia, but to the later stages when a heavily mineralised belt comes to carry a large white population and when the necessities of the farmer, cattle-dealer, and transport rider demand that the fly must go. I think it must be accepted that fly cannot be got rid of or driven from a district without killing off, or frightening away in the process, the big game upon whose blood the tsetse exists.

Finally, I should like to impress the fact that the British South Africa Company has a strong appreciation of the importance of the question of wild game, and that it will do what it can to ensure its preservation within its borders.

Southern Rhodesia has a very efficient Game Law, and it is moreover stringently administered, and the best proof of this is that it is the very general opinion of men who are in a position to judge that big game is increasing steadily in that territory; and I

am sure that, were Mr. Selous to revisit the country over which he hunted many years ago, he would not only find that game is both widely distributed and in considerable quantities, but that it stands in no danger of extermination.

In North-Eastern Rhodesia there is little danger in this regard, for a great part of the country is 'fly country,' and, moreover, it is generally not thickly populated, while the Game Law is sound and well administered.

I have already stated the principle that industrial development must not be interfered with, and with this fact few people, I think, will quarrel, but at the same time it is not unlikely that in a large territory like North-Western Rhodesia, and in spite of the fact that the natives have the right to shoot game at will, it may be found possible to arrange one or more reserves which fulfil more or less the ideal requirements as to a sufficient area to allow for reasonable migration and so on; and if it is possible to do this I am sure that not only will the British South Africa Company do all it can to establish such reserves, but that it will lose no precious time in doing so.

R. T. Coryndon.

Cape Town, January 5, 1907.

[We are grateful to Mr. Coryndon for contributing his able and interesting article to this Journal, but it will not be supposed that this Society concurs in the views expressed by him with regard to Game Reserves on pages 70 and 71. It is some years now since the Society strongly urged upon the Chartered Company the necessity of establishing Reserves; and if the difficulty is that 'the settlement and development of the wild countries has gone ahead so rapidly of recent years,' we may be permitted to recall that this is exactly what we pointed out at that time, strongly urging that the Reserves should be selected before this took place.

We contend that one of the responsibilities of the Chartered Company to the Empire in return for the great privileges it has received is the preservation of the Fauna, at least in fair numbers, for future generations. It is admitted that Reserves are essential to the preservation of the species when a country becomes settled, and we cannot but regret that Mr. Coryndon contemplates the necessity, even after he has established such Reserves, to 'throw them open to the farmer or the miner.' Such a policy seems to us to magnify the claims of the shareholder at the cost of those of the Empire.—Editor.]

A REPORT FROM BRITISH EAST AFRICA.

By Col. J. H. Patterson, D.S.O.

'Having just returned from a three months' safari in British East Africa, it may interest "The Fauna" (as we may, perhaps, for convenience dub our Society) to have a line or two on what I saw while out there.

'They will be pleased to hear that I consider the game to be as plentiful as it was seven or eight years ago, and some specimens have increased considerably, notably buffalo, eland, oryx, and giraffe, also roan. We saw one day in a certain district a herd of fully 500 buffalo, and a fine sight it was. I saw no elephant, but I had news of herds in my neighbourhood more than once. I only saw one lion throughout my journey through the country. I heard these beasts frequently at night round the camp, and came across fresh kills of both zebra and hartebeeste. While at Fort Hall a report was brought in by natives that a lion had killed a rhino close by. This was investigated, and although there were lots of traces of lion on the dead rhino, we came to the conclusion that the rhino was either dead or dying when the lion appeared on the scene. Not far from the same place there was a battle royal between a buffalo and a lion, and both were found dead close together by Mr. Horne, the Assistant Collector at Fort Hall, who has the buffalo head, a grand specimen, in his possession. I might mention that I counted twenty-one rhino on one occasion from the top of an ant-hill, and while in this locality I had much difficulty in keeping clear of these beasts.

'I saw but little game on Likipia. I attribute this to the fact that it is now a Masai Reserve, and the huge herds of cattle owned by this tribe eat up everything, so the game has gone elsewhere. So far as I can judge, the settler has injured the game but little as yet. Of course, as the community increases the game must retreat, as no one can expect a farmer to allow his crops and fences to be destroyed by wild animals.

'I consider that the increase in the game has been brought about chiefly by the careful way in which the regulations are adhered to by the sportsmen who visit the country. The latter do good by shooting off the old beasts, splitting up the herds, and

so allowing the younger bulls to propagate the species. The great number of lions killed in recent years has no doubt also benefited the game to a great extent.

'There is just one thing which requires careful attention, and that is the native of the country and his methods of killing and capturing the game. I think the officials should prohibit game-pits. I saw natives hunting the animals across most carefully prepared pits which extended for miles. I must say I saw no animals caught, as they appeared to know all about the pits and galloped parallel to them; at the same time I gather that many animals are destroyed this way yearly. These pits are most dangerous to the sportsman; two of our party fell into them and narrowly escaped with their lives.

'I consider that the Game Ranger in British East Africa should have a couple more keen men on his staff, and that they should be given the means to travel through the country to look after the game—not sit still at Nairobi or elsewhere. I think this is a point that the Society should strive for—more keen men *and* a good travelling allowance per man.

'In conclusion I may state that I consider it will be many years yet before the game will be driven to their furthest boundary—*i.e.* the sanctuaries which it is one of the aims of the Society to see established throughout the Empire ere it be too late.'

THE DYING FAUNA OF AN EMPIRE.

(*Reproduced from the* Saturday Review, *November* 24, 1906, *by permission of the Proprietors.*)

Mr. Asquith is convinced that in the interests of the Empire there ought to be a larger gold reserve. After reading the new Blue-book on the 'Preservation of Wild Animals in Africa' one is not sure it may not be equally important for the Empire to have a larger game reserve. This view is not reached directly we open the new Blue-book on the preservation of game in Africa. Impatience is our first feeling. Why are many English Blue-books and State papers—the typical specimens—so badly done? Why have they as a rule no beginning, no end? These attributes are proper to time and space, but why attach them to a Government publication? Précis, we believe, is one of the subjects regularly set at some of the Civil Service examinations; is this the reason why no attempt is made in a publication like this to gather up the threads of the argument and present a clear, succinct statement of the whole case for those who have not time to read nearly four hundred foolscap pages of matter, half of it utterly unessential, and most of the remainder consisting of details that ought to be put into those lumber-rooms of print, the appendices? Here is correspondence covering between ten and eleven years without index, without preface, without summary, without the slightest direction as to what the argument is all about save such as may be given by the title. No wonder Charles Lamb condemned King's Printer publications as *biblia abiblia*, impostors in books' clothing. And these things are in the main made up for and read by members of Parliament whose time surely is as crowded and useful as that of most other English people!

However, once we have misspent our hour or two in finding and losing and finding again our way through this 'mighty maze . . . without a plan,' the result is very satisfactory. In the tangle of memoranda and enclosures and schedules and so forth we can in the end discover and seize the threads of a deeply interesting and important national matter. It is over ten years since Lord Salisbury suddenly awoke to the fact that a grand national possession was being ruthlessly squandered, the great game of the Empire. Thereupon he wrote promptly to the chief officials of the East Africa Protectorate and Uganda an incisive letter; and we are much mistaken if this letter, with its ring of indignation,

was the work of clerk or secretary. It declared in a few words that 'the larger wild animals known as "big game"' were being excessively destroyed by travellers and others in East Africa, and would completely disappear from the Protectorate in a few years unless some check was put on their wholesale slaughter. True, even in those days there was some restriction on the killing of the noble fauna of British Africa: there were certain licences, for instance one of £25, which had to be taken out by anyone who desired to kill game in the territory of the British East Africa Company, and a similar regulation existed in the British Central Africa Protectorate as to elephants. But these checks had done next to nothing to save the great game of all kinds from destruction. The native with his bow and poisoned arrow was the least formidable enemy of great game; it is doubtful whether any species was ever in danger of extinction through such a weapon. The danger really began when gunpowder and rifles were freely imported into Africa, and the sport of big-game shooting became fashionable among rich and irresponsible young Englishmen. To this class of course the licence was absolutely no check. Not all the great game hunters have been quite thoughtless and selfish in the pursuit of their pleasure: there have been honourable exceptions no doubt: but we are bound to say that on the whole the English sportsman who has gone out to Africa with his pocket full of money, and his one idea the excitement of the chase, has deserved ill of the Empire. Much of the game has no doubt gone down, inevitably, before the settler and the spread of civilisation; but vast numbers of animals have been killed in and out of season without the smallest service to the nation. We believe in sport, but it must be moderated by a full sense of responsibility. The mere insensate pursuit of horns and heads is quite abominable; and we are sorry to say that many big-game parties have been organised by young men who in this matter have about as much sense of duty to their country as have the game they pursue. Their one idea has been to pile up a triumphant total of 'kills.' This is a hard, distasteful thing to say, but it is impossible to read these records of wholesale waste and selfishness without rage against the wanton culprits. They have erred largely through ignorance—yes, but is such ignorance quite pardonable in men who have had all the advantages of education? We remember Stanley blazing out against this careless slaughter without check of the noble life of African plain and forest. Stanley was not exactly the kind of teacher of conduct an English gentleman need take lessons from; but in this question he did a public service by his angry reproach.

The old system of licences and regulations, then, served little or nothing to save the fauna of our African dominions. It was clear, years ago, to a German official, Major von Wissman, that, if the great game was to be economised, sanctuaries or reserves must be established. He accordingly set apart two great districts of German East Africa in which game was protected absolutely.

This seems to have been the first really effective step towards sparing the fauna of Africa. The English authorities saw great obstacles against the establishment of such sanctuaries in our own territory, but happily we have followed the German example. There are now several large sanctuaries, such as the splendid 'Southern Reserve' of British East Africa. The train passes along the whole length of this sanctuary, and it is worth travelling thousands of miles to see, if only from the window of a railway carriage, the great masses of noble game which to-day roam the district. It is a kind of Yellowstone Park, save that the precautions against poaching are not so complete here or in the other great game preserves as those in America. A larger staff and more generous help from the Treasury are greatly needed if these sanctuaries are to be made as inviolate as that of the United States. In 1905 and again this year the Secretary for the Colonies met deputations on the subject from the Society for the Preservation of the Empire's Fauna; but has much been done since Mr. Lyttelton expressed his sympathy with the movement last year? The Blue-book is not very encouraging in this. Lord Elgin has directed the Commissioner of Somaliland to discontinue the special licences for hunting in the reserves, and apparently the proposal of the Society to extend the Hill Reserve there or to form a fresh reserve in the Gadabursi Mountains is 'under consideration.' This is something, but we should like to hear of progress on a larger scale. Lord Curzon, we believe, is opposed to treating this question as one of financial gain and loss; he prefers the more patriotic view that whether the policy of game preservation on a large scale pays the Government or not, it should be carried out as a duty to the Empire and to posterity. Frankly, we do not believe with some of the advocates of these reserves that the nation can make money out of the policy. To do the thing to real, lasting effect, the nation must make up its mind to spend more than it makes. America is nothing if not money-making, yet even the Americans, when they found their wild fauna being destroyed, did not hesitate to spend money freely on what remained. They were too late to save the bison, but what they have done in saving many other wild animals, including the summer duck in peril of extinction, Yellowstone, the grandest sanctuary in the world, testifies. It is a shame that we should have lagged behind America and Germany, even Norway. A large vote for game preservation in Africa would be popular in the country and in Parliament. Somaliland in particular deserves more protection. For many years it has been the unhappy hunting-ground of those who care for nothing but trophies, to whom the growing rarity or extinction of a species is matter of no concern provided they can satisfy their own greed. Swayne's hartebeeste is in actual danger of extinction throughout the Protectorate. Clarke's gazelle and the beisa are also greatly diminished, thanks to tribesmen with rifles and selfish white hunters. And these animals are not known to exist outside Somaliland!

We wish that a game commissioner for the whole of our African preserves could be appointed with a large staff and a good round sum of money at his command. A man with the knowledge and right feeling of General Swayne, for instance, would do the work splendidly. A year ago General Swayne drew up a report on the fauna of Somaliland. His notes, deeply interesting, are printed in the Blue-book, and a kind of census of the animals now existing in the Protectorate. One reads it with mingled feelings of delight and exasperation. Whilst some species are quickly and surely dying out, others so far have held their own. But every year almost the hunter gains some fresh advantage over his quarry. Of old he had to practise wood-craft. Then there was real sport, To-day, with his arms of precision, he need scarcely stalk the wild creature to get within range. If he is a good shot he is often near enough at a quarter of a mile from the game. Sport, in fact, is marksmanship, nothing more. We remember talking to the late Duke of Beaufort about what really constitutes sport with gun and hound, and he declared strongly that venerie was the thing. This is clearly General Swayne's view too. If the average big-game hunter were of the same opinion, the African fauna would not be in the peril we find it to-day.

'To the Editor, *Saturday Review*.

'Sir,—The article on "the Dying Fauna of an Empire" which appeared in your issue of November 24 has greatly interested me.

'Having spent many years in some of the greatest haunts of African big game, perhaps you will give me space to express a few opinions and correct a small error.

'At present I am personally more interested in the Fauna of Somaliland than elsewhere, owing to the fact that I am resident in the Protectorate.

'General Swayne's report, which you allude to, was read by me immediately after it was penned, and in the main I entirely agree with him.

'General Swayne had ever the interests of this Protectorate and its Fauna at heart, and the Government is very fortunate in its selection of his successor.

'Captain H. E. S. Cordeaux is to-day doing everything in his power to prevent the needless slaughter of the beautiful Fauna of this country.

'Swayne's hartebeeste still roams in fair-sized herds on the plains to the west and south-west of Hargeisa, in the country of the Jibril Aboukr, Abdulla Aboukr, Samanter Abdulla, and Rer Ali Sections of the Habr Awal and Ogaden tribes.

'The Anglo-Abyssinian line of demarcation to-day cuts off these

fine grazing-grounds which are now included in the Abyssinian sphere of influence.

'With the exception of a few small herds on Toyo plain there is not a hartebeeste in this Protectorate.

'To my certain knowledge no European has shot hartebeeste on Toyo during my residence in this country, and if the species becomes extinct we must thank the Abyssinians for its extermination. Clarke's gazelle is not likely to become extinct now that there are no troops stationed in the area where it is to be found, as the Somalis would never trouble to hunt it.

'As regards the Beira, it is never likely to become extinct as it is by no means easy to procure a specimen, although they are to be found in plenty in suitable localities. I doubt whether the most enthusiastic sportsman would trouble to shoot more than one or two of these pretty little antelopes, owing to the difficulty in seeing them even when within eighty yards of them.

'I venture to say that one of the reasons why the game has disappeared to some extent is the large increase of the vermin during the past few years.

'During the expeditions against the Mullah the caravan roads were strewn with the carcases of camels and other beasts of burden, in consequence of which hyænas and jackals were plentiful, and owing to the increase of food they bred more freely.

'As soon, however, as the expeditions came to an end, the hyæna's food supply ran short, and the country was left with a legacy of jackals and hyænas whose boldness became a terror.

'Even to-day men and women are bitten at night by these pests, and they have even been known to enter the native huts and take away the little children.

'Time and hunger will remove this superfluity of vermin, and under the present game laws the game, we all sincerely hope, will increase.

'Regarding the making of a fresh reserve in the Gadabursi mountains, I might mention that as far as I can learn only one or two white men have ever entered these hills, and little or nothing is known of them.

'Certainly no sportsman, to my knowledge, has ever shot big game there with the exception of the brothers Swayne, and even they travelled very quickly through those inhospitable hills.

'The Gadabursi country has been for years a sanctuary for the game, and until sportsmen hunt there it is quite unnecessary to place it in the Reserve.

'Believe me, Sir, yours truly,

'P. E. Drake-Brockman,
Member of Society for Preservation of the
Fauna of the British Empire.

'Somaliland: December 18, 1906.'

GAME LAWS AND REGULATIONS.

By F. Gillett.

In the making of Game Laws there are three different classes that have to be considered; the natives, the settlers, and European sportsmen.

The natives may from time immemorial have depended almost entirely on the game of the country for food and clothing, but owing to their primitive weapons, their methods of capture, and the fact that large areas of country were left unmolested as the various tribes confined themselves to certain districts for the sake of safety, instead of being scattered over the whole country in single families, the game was able to withstand the annual toll taken from them.

Besides this, the natives did not in all cases depend on the game; for instance, in Somaliland, except for the outcast Midgan tribe, who are hunters and mercenary soldiers by profession, the tribes are as a rule nomads, wandering about within certain areas with their flocks and herds, and living principally on the produce of these flocks. Of course they killed a certain amount of game but they did not hunt systematically for a livelihood, rice, milk, and dates being their staple food.

Again, in British Columbia, whereas the Chilcotin Indians spend most of their lives hunting, the Indians living along the Fraser river and its tributaries subsist almost entirely on the salmon which they catch in the fall of the year.

Now, in considering this class in the framing of game laws it is necessary to ascertain the conditions, past and present, of the various tribes, because whereas it would be no hardship in a general way to make very stringent laws in Somaliland, it would in other districts be unfair, and I might even go so far as to say criminal, to prevent a tribe or tribes from obtaining their living in the way they have been accustomed to for generations past.

In Canada, as a rule, the Indians are permitted to kill any game on their Reservations at any season of the year; in a general way the game on their Reservations has long since been killed off. Outside their Reservations they are subject to the same laws as the rest of mankind, but these laws they sometimes break with the greatest ease: for example, it is the custom of the Indians—at least it was a few years ago, on a Reservation near Grand View, Manitoba—to hunt all the year round outside their Reserve, and to bring whatever they killed into the Reserve, and, if questions were asked, to say they killed it there. The result was that within a two days' journey of their Reserve they had practically exterminated the wapiti hinds. A half-breed Indian I had with me told me of this, adding that there were still some stags left and

offered to take me to them. For two days we cut our way through dense bush, and then I discovered that what he had said was correct. I saw nine stags on one occasion and seven on another fighting for a single hind and I gathered from the tracks of others what few hinds were left had a large following of admirers. The result of such a state of things it is unnecessary to dwell on, but the difficulties of the case were so great that even if the authorities had been aware of what was going on they would have found it no easy matter to cope with. In the same locality a great deal of trouble was being taken to preserve the game, even down to the ducks, from being killed out of season by the settlers.

In the framing of game laws the rights and necessities of the natives should be the first consideration, but care should be taken not to give them opportunities of killing game which they have not desired or had the chance of exercising in times past.

The next question to be considered is that of the settlers, and here again careful handling is necessary. There is no doubt that this class kill a great deal of game in season and out, and it is no easy matter to prevent them doing so.

Provided they kill a certain amount for the sake of the meat for their own consumption, I personally do not consider one is justified in stopping them: they are opening up new country, they are usually having a hard struggle to tide over the early stages of colonisation and after the natives they have more right to the game than anyone else. But when they make a practice of killing the game for profit, either for the sake of selling the horns and hides or the meat, then I do say every effort should be made to bring them to book. In Newfoundland hundreds of cariboo used to be killed for their skins; measures were taken, I believe, to check this, but I believe I am right in stating that in the south of the island cariboo are still killed every winter and the carcases carried by the hundred in ships and sold in St. John's for a few cents a pound.

In Canada and America large numbers of wapiti were killed for the sake only of their tushes.

There is a very considerable demand for horns as trophies by tourists, and certain individuals in Canada and elsewhere will pay handsomely for all horns offered to them, for which I have no doubt they have a ready market. The result is, in Canada and Newfoundland every man takes the opportunity of killing whatever beast he comes across for the sake of the few dollars he may get for the head.

As far as possible this should be stamped out, but in considering the question of the settlers, their requirements with regard to meat must not be overlooked.

The last and easiest of the three classes to deal with is the European sportsman. He has no rights whatever which have to be considered; everyone in the district knows the object of his visit, and although he probably of the three classes does least harm the energies of the game wardens are generally centred against him.

Every day the inhabitants are appreciating more and more the value to them of the big game which draws this class to their locality, bringing them money and employment, and in many places they nowadays assist the game laws in the event of the sportsman breaking the regulations.

I received a letter a short time ago from a storekeeper of a settlement in British Columbia, and it may be of sufficient interest to quote a portion of it :—

'I do not know if you heard of —— being fined for having heads in his possession before the season opened. He took a party out in August and they killed three rams before the season opened. The Indian cook gave it away, and the game wardens made a case out of it and won. People are beginning to realise what the game means to the Province, and it will be much better protected in the future.'

The most interesting thing about this is that only a few years ago this same man rode into the settlement one day with a party who had been after bear in the spring ; halting in the middle of the street, he threw down three rams' heads ; the whole population turned out, amongst them the game warden, and he defied this officer to summon him and was backed up by all the men present, with the result that the game warden turned on his heel and no notice was taken of the matter.

Now in legislating for the sportsman I need say very little. It is easy to keep an eye on him, and the laws with regard to him are excellent ; he has a good many grievances, some of them quite legitimate ; but he is a free individual, and if he does not like the laws in one country he can go to another, and anyway it is not the object of this Society to vent his grievances.

With regard, therefore, to game laws as a whole, I have only to say the open season should be made, taking the habits of the animals and the climatic conditions of the country into account ; the killing should be restricted to the males alone, and the numbers should be limited to the quantity of game in the district.

For the sake of statistics, the numbers killed by each individual should be recorded, and sportsmen should be made to take out a licence for which a heavy sum is charged. This may seem hard on many individuals who find the expense of big-game shooting heavy enough already, but the money so derived will help to protect the game in two ways : firstly, it will supply the wages of the game wardens, and secondly the number of men who go after big game increases year by year, and it is necessary to limit the number in this way or else only to grant a certain number of licences for each district every year.

SOUDAN.

Statistics of Game Killed under Licences 1904–1905.

Province	Elephant		Buffalo		Tiang		Waterbuck		Mrs. Gray's Waterbuck		White-eared Cob		Uganda Cob		Roan Antelope		Oryx Leucoryx		Oryx Beisa		Addax		Kudu		Reedbuck		Bushbuck		Sitatunga		Addra Gazelle		Ariel		Other Gazelles		Duiker	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Upper Nile	16	1	32	9	64	19	130	12	23	1	87	6	10	1	34	9	—	—	—	—	—	—	—	—	21	—	11	—	—	—	—	—	—	—	94	18	7	—
Sennar	2	1	9	1	8	2	11	—	—	—	—	—	—	—	27	6	—	—	—	—	—	—	4	—	28	—	7	2	—	—	—	—	51	8	41	14	—	—
Kassala	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	41	2	53	7	1	—
Bahr-el-Ghazal	6	—	6		24	4	38	9	2	—	39	2	26	4	3	—	—	—	—	—	—	—	—	—	8	3	25	9	1	—	—	—	—	—	5	1	10	1
Kordofan	2	—	—	—	16	2	8	1	—	—	11	—	—	—	8	1	6	5	—	—	—	—	—	—	7	—	2	—	—	—	11	—	—	—	46	6	9	4
Suakin	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	—	—	—	—	—	—	—	—	—	35	8	84	27	—	—
Other Districts	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6	—	—	—
Late Returns 1903–4	3	—	1	—	6	—	10	1	1	—	12	—	3	—	1	1	—	—	—	—	—	—	—	—	4	1	9	6	—	—	—	—	—	—	9	1	3	—
Total of Sexes	29	2	50	10	118	27	197	23	26	1	149	8	39	5	73	17	6	5	—	—	1	—	7	—	68	4	55	17	1	—	11	—	127	18	338	77	30	5
Total of Species	31		60		145		220		27		157		44		90		11				1		7		72		72		1		11		145		415		35	
Totals 1900-1	30		34		83		78		16		78		6		39		2		—		—		1		22		31		—				74		139		8	
,, 1901-2	18		37		123		95		14		95		1		71		9		—		—		13		63		27		—		12		135		335		8	
,, 1902-3	23		49		132		126		8		94		2		52		10		—		—		22		47		26		—		11		46		182		4	
,, 1903-4	29		48		119		110		14		92		—		67		13		1		1		8		91		54		—		22		178		442		13	
,, 1904-5	31		60		145		220		27		157		44		90		11		—		1		7		72		72		1		11		145		415		35	

Soudan.

Statistics of Game Killed under Licences 1904-1905—*continued.*

Province	Dig-Dig		Klipspringer		Oribi		Ibex		Barbary Sheep		Hippopotamus		Wart-Hog		Wild Boar		Lion		Leopard		Cheetah		Ostrich		Rhinoceros		Giraffe		Eland		Wild Ass		Tora Hartebeeste		Jackson's Hartebeeste		Wild Dog	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Upper Nile	—	—	—	—	39	12	—	—	—		19	7	16	5	—	—	1	1	3	3	1	—	—	—	—	—	—	—	—	—	—	—	30	6	2	—
Sennar	14	—	—	—	58	15	—	—	—		5	—	20	4	—		9	11	3	—	—	—	—		1	—	—	—	—	—	—	—	11	3	—	—	3	—
Kassala	3	2	—	—	1	—	—	—	—		—	—	—	3	—	—	—	—	2	—	—	—	—	—	—	—	1	—	—	—	—	—	3	—	—	—	—	—
Bahr-el-Ghazal	—	—	—	—	15	7	—	—	—		17	2	22	4	—	—	4	—	2	—	—	—	—	—	—	—	2	—	6	1	—	—	—	—	22	7	2	—
Kordofan	—	—	—	—	20	8	—	—	—		—	—	2	—	—	—	3	1	—	—	—	—	—	—	—	—	2	—	—	—	—	—	—	—	17	10	—	—
Suakin	3	3	2	—	—	—	14	3	—	—	—	—	4	6	—	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Districts	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Late Returns 1903-4	—	—	—	—	9	5	—	—	—		1	—	3	1	—	—	1	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	12	5	—	—	—	—
Total of Sexes	20	5	2	—	142	47	14	3	1	1	42	9	67	23	—	—	19	14	11	4	1	—	—	—	1	—	5	—	6	1	—	—	14	3	81	28	7	—
Total of Species	25		2		189		17		2		51		90				33		15		1				1		5		7				17		109		7	
Totals 1900-1	—		—		43		5		—		19		15		2		23		7		2		5		4		4		—		2		42			—		
,, 1901-2	14		2		76		4		—		37		33		2		25		9		—		8		1		1		2		1		71			—		
,, 1902-3	5		—		85		23		—		29		22		—		12		1		2		7		1		—		—		—		20		29		1	
,, 1903-4	45		—		206		6		3		29		73		1		23		6		3		5		—		1		3		3		37		49		3	
,, 1904-5	25		2		189		17		2		51		90		—		33		15		1		—		1		5		7		—		17		109		7	

Totals :—Upper Nile, 751 ; Sennar, 378 : Kassala, 122 : Bahr-el-Ghazal, 330 ; Kordofan, 295 : Suakin, 194 : Other Districts, 9 : Late Returns, 1903-4, 114. Grand Total, 2,115. Totals 1900-1, 814 : 1901-2, 1,342 : 1902-3, 1,671 ; 1903-4, 1,798 ; 1904-5, 2,115. Rifles, Residents, Officials and Officers, 113 : Visitors, 21 ; Total 134. Note :- *Uganda Cob* seems to include another species not satisfactorily identified. *Bushbuck* includes both the Abyssinian and the 'Harnessed' species. *Other Gazelles* include :—Gazella Ruffifrons, Gazella Ptilonura, Gazella Dorcas, Gazella Isabella. *Duiker* includes : Cephalophus Abyssinicus, Cephalophus Aequatorialis, and a red species. *Jackson's Hartebeeste* includes two Newman's hartebeeste, possibly more.

A. L. Butler,
Superintendent, Game Preservation Department.

EAST AFRICA PROTECTORATE, 1904–05.

Prosecutions under Game Regulations.

Total Prosecutions.	Fines.	Imprisonment.	Property Confiscated.	Discharged.	Acquitted.	Grand Total
40	22	10	6	6	1	= 45

(In five cases imprisonment and fines were inflicted.) Total of fines Rs. 15,753.

Return of Game killed on 98 Sportsmen's Licences.

Species	Male	Female	Locality
Elephant . . .	19	5	Rift valley 14, Guaso Nguisho 3, Mau 7
Rhinoceros . .	98	27	Athi 53, Rift valley 46, Guaso Nguisho 1, Mau 5, Kenia 11, Makindu 3
Hippopotamus . .	22	5	Athi 13, Rift valley 7, Kenia 7
Giraffe . . .	12	2	Athi 6, Rift valley 2, Kenia 2, Makindu 2, Guaso Nguisho 2
Hartebeeste, Newman's	38	5	Rift valley 43
Hartebeeste, Jackson's	171	35	Rift valley 161, Guaso Nguisho 36, Mau 12
Hartebeeste, Coke's .	266	39	Athi 265, Makindu 13, Kenia 14, Coast 1, Rift valley 3
Topi	43	6	Rift valley 19, Guaso Nguisho 4, Mau 26
Wildebeeste . .	82	5	Athi 82, Makindu 1, Kenia 4
Duiker . . .	14	4	Athi 9, Rift valley 6, Kenia 2, Mau 1
Dik Dik . . .	62	6	Athi 8, Rift valley 50, Kenia 10
Oribi	42	2	Rift valley 24, Guaso Nguisho 4, Mau 12, Kenia 2, Coast 2
Steinbuck . .	50	8	Athi 14, Rift valley 40, Makindu 2, Kenia 2
Klippspringer . .	14	7	Athi 8, Rift valley 13
Waterbuck .	259	20	Athi 93, Rift valley 126, Guaso Nguisho 2, Mau 6, Kenia 38, Coast 1
Cobus Thomasi . .	6	—	Guaso Nguisho 5, Lake 1
Reedbuck, Bohor .	76	11	Athi 16, Rift valley 44, Guaso Nguisho 5, Lake 20, Kenia 5
,, Chaulers .	18	6	Athi 25, Rift valley 25, Mau 4
Impalla . . .	331	9	Athi 135, Rift valley 151, Mau 5, Makindu 17, Kenia 32
Gazelle, Thomson's .	359	21	Athi 230, Rift valley 150, Makindu 4, Kenia 2
,, Grant's .	291	11	Athi 176, Rift valley 226, Mau 3, Makindu 20, Kenia 7
,, Waller's .	7	—	Rift valley 2, Makindu Voi 3
Roan . . .	18	—	Athi 5, Rift valley 4, Guaso Nguisho 1, Mau 8
Oryx . . .	31	14	Rift valley 29, Makindu 14, Kenia 2

Species	Male	Female	Locality
Bushbuck . . .	36	5	Athi 11, Rift valley 22, Makindu 1, Kenia 5, Mau 1, Guaso Nguisho 1
Kudu, Greater . .	2	1	Rift valley 2, Makindu 1
,, Lesser . .	4	1	Guaso Nyiro 3, Makindu 2
Eland . . .	33	2	Athi 9, Rift valley 19, Makindu 3, Guaso Nguisho 1, Kenia 2, Coast 1
Buffalo . . .	5	2	Athi 3, Rift valley 3, Mau 1
Zebra . . .	114	21	Athi 48, Rift valley 68, Mau 5, Makindu 5, Guaso Nguisho 5, Kenia 3, Coast 1
Ostrich . . .	31	2	Athi 12, Rift valley 15, Kenia 1, Makindu 5
Marabout . . .	28	—	Athi 16, Rift valley 8, Mau 2, Makindu 1, Guaso Nguisho 1
Cheeta . . .	12	—	Athi 5, Rift valley 4, Kenia 2, Guaso Nyiro 1
Serval . . .	6	—	Athi 3, Rift valley 3
Colobus Monkey .	22	9	Rift valley 26, Mau 3, Kenia 2
Sable . . .	2	2	Shimba Hills

Return of Game killed on 37 *Settlers' Licences.*
Year 1904–05.

Rhinoceros . .	2	—	Athi 1, Rift valley 1
Hippopotamus . .	1	—	Athi 1
Hartebeeste, Coke's .	61	13	Athi 72, Rift valley 2
,, Jackson's	86	16	Rift 66, Mau 36
Wildebeeste . .	6	—	Athi 6
Duiker . . .	9	2	Athi 5, Rift 2, Mau 4
Dik Dik . . .	2	—	Rift 2
Oribi	8	—	Rift 2, Mau 6
Steinbuck . .	7	1	Athi 4, Rift 2, Mau 2
Klippspringer . .	3	1	Rift 3, Mau 1
Waterbuck . .	15	4	Athi 7, Rift 6, Mau 6
Reedbuck, Bohor .	39	7	Rift 16, Mau 30
,, Chanlers.	15	4	Athi 16, Rift 2, Mau 1
Impalla . . .	23	6	Athi 19, Rift 6, Mau 4
Gazelle, Thomson's .	134	9	Athi 69, Rift 72, Mau 2
,, Grant's .	40	7	Athi 14, Rift 30, Mau 3
,, Waller's .	1	—	Rift 1
Bushbuck . .	10	—	Athi 3, Rift 3, Mau 4
Pig	33	7	Athi 13, Rift 17, Mau 10
Other antelope . .	3	2	Guaso Nyiro
Shot on private land			
Topi	3	—	Mau
Zebra . . .	1	—	Mau

Return of Game shot on 108 *Public Officers' Licences (including* 14 *days' Licences).*

Elephant . . .	20	5	Athi 2, Baringo 8, Mau 5, Lake Victoria 5, Kenia 3, Nyiri 2
Rhinoceros . .	31	7	Athi 12, Baringo 17, Mau 4, Lake Victoria 2, Kenia 2

Species	Male	Female	Locality
Hippopotamus . .	15	1	Athi 2, Baringo 4, Mau 2, Lake Victoria 5, Coast 3
Hartebeeste, Newman's	9	3	Rift valley
Hartebeeste, Jackson's	93	11	—
Hartebeeste, Coke's .	89	14	Athi 76, Makindu 15, Rift valley 5, Jubaland 2, Kenia 4, Coast 1
Topi	68	4	Mau 44, Lake 16, Jubaland 12
Wildebeeste . .	34	2	Athi 23, Makindu 2, Rift valley 11
Duiker . . .	32	7	Athi 15, Makindu 1, Rift valley 8, Mau 6, Lake 5, Kenia 3, Coast 1
Dik Dik . . .	28	3	Athi 3, Makindu 3, Rift valley 20, Jubaland 2, Coast 3
Oribi	66	9	Kenia 10, Rift valley 8, Mau 50, Jubaland 1, Coast 4
Steinbuck . .	12	2	Athi 11, Makindu 2, Rift valley 1
Klippspringer . .	10	3	Athi 10, Baringo 1, Mau 2
Waterbuck . .	109	10	Athi 37, Coast 4, Makindu 9 (Elipsiprominus), Rift valley 30, Mau 12, Lake 12, Jubaland 4, Kenia 11 (Defassa)
Thomas' Cob . .	4	—	Mau 2, Lake 2
Reedbuck, Bohor .	59	3	Makindu 1, Rift 21, Mau 24, Lake 15, Kenia 1
,, Chanlers.	33	2	Athi 22, Rift 9, Lake 3, Kenia 1
Impalla . . .	117	17	Athi 32, Makindu 12, Rift valley 84, Lake 6
Gazelle, Thomson's .	192	13	Athi 99, Makindu 2, Rift valley 97, Kenia 5
,, Grant's .	121	1	Athi 54, Makindu 11, Rift 58, Kenia 4, Mau 1
,, Peter's .	8	—	Voi 1, Coast 1, Jubaland 6
,, Waller's .	9	—	Jubaland 8, Anglo-German Boundary 1
Sable . . .	4	1	Coast (Shimba Hills)
Roan . . .	15	1	Athi 1, Rift 5, Mau 7, Lake 3
Oryx . . .	7	3	Makindu 1, Magadi Lake 4, Baringo 2, Guaso Nyiro 3
Bushbuck . .	49	5	Athi 14, Baringo 12, Mau 13, Kenia 6, Coast 6, Lake 2, Jubaland 1
Kudu, Greater . .	2	—	Baringo 1, Athi 1
,, Lesser . .	6	—	Malindi 1, Jubaland 3, Anglo-German Boundary 2
Eland	1	2	Athi, Makindu, Anglo-German Boundary
Buffalo . . .	2	—	Athi 1, Lake 1
Zebra . . .	18	4	Athi 25, Makindu 4, Rift 20, Kenia 3
Ostrich . . .	15	—	Laikipia 2
Marabout Stork .	8	—	Athi 3, Makindu 1, Rift 2, Mau 2
Colobus Monkey .	20	—	Rift valley and Kijabi 16, Mau 2, Kenia 2
Serval . . .	16	—	Athi 5, Rift 6, Mau 2, Kenia 3
Cheeta . . .	1	1	Athi 1, Rift 1

QUESTION ASKED IN THE HOUSE OF COMMONS BY S. H. WHITBREAD, ESQ., M.P., DECEMBER 19, 1906.

Q. Mr. Whitbread,—To ask the Under Secretary of State for the Colonies, whether the Secretary of State has observed the estimate by Mr. F. J. Jackson, Deputy Commissioner for the East Africa Protectorate, given on page 344 of [Cd. 3189], that the revenue derived from game licenses, Customs dues, and other expenditures by hunting parties in that Protectorate cannot be less than £20,000 annually; that, in Mr. Jackson's opinion, the only hope of keeping up this revenue lies in the establishment of an efficient Game Ranger's Department; whether the Government are taking, or contemplate taking, steps to establish such a department on an adequate scale; whether the areas of the reserves in the East Africa Protectorate, the Budonga and Toro reserves in Uganda, and the Elephant Marsh reserve in British Central Africa have been reduced during the present year; if so, whether the Secretary of State has sanctioned such reductions; whether the regulations of the East Africa Game Ordinance, 1906, as to the size of ivory, have been relaxed as to ivory in transit from Uganda; whether his attention has been called to the remarks by Mr. Jackson, in paragraph 4, page 342, of the same Blue Book, on the trade in game hides from German East Africa *via* Mombasa; and whether the Government will take steps to check such trade. [19*th December*, 1906.]

A. Mr. Churchill.—The answer to the first part of the honourable Member's question is in the affirmative. With regard to the second part of his question I would refer him to Lord Elgin's despatch at page 386 of Cd. 3189, in which his Lordship instructed the Commissioner of the East Africa Protectorate to bring forward the question of establishing a Game Ranger's Department in connection with the Estimates for 1907-8. These Estimates will be received very shortly, and the matter will then be carefully considered.

With regard to the third part of the question, the boundaries of the Reserves in the East Africa Protectorate have been redefined by the Ordinance of the 14th of April, a copy of which is printed at pages 356-365 of Cd. 3189; but, so far as I can see, *no important reductions have been made*. The Budonga and Toro Reserves in Uganda have been reduced during the present year,

but, as the honourable Member will see on reference to page 354 of Cd. 3189, the former Reserve is still approximately 560 square miles * in extent and too large and difficult to be systematically controlled without a special staff, while the area of the latter is now about 970 square miles,† the original boundaries having extended beyond all practical requirements.

The area of the Elephant Marsh reserved in British Central Africa has been reduced since its establishment in 1897, but, so far as I am aware, no reduction has been made during the present year. The reductions referred to above have been sanctioned by the Secretary of State.

With regard to the fourth part of the question, Section 7 of the Game Ordinance of the East Africa Protectorate, No. 9 of 1906, empowers the Commissioner to make rules legalising the export in transit through the Protectorate of any ivory lawfully acquired in Uganda, even though of less weight than the minimum allowed by the Ordinance.‡ The reasons for this exception are given at page 354 of Cd. 3189.

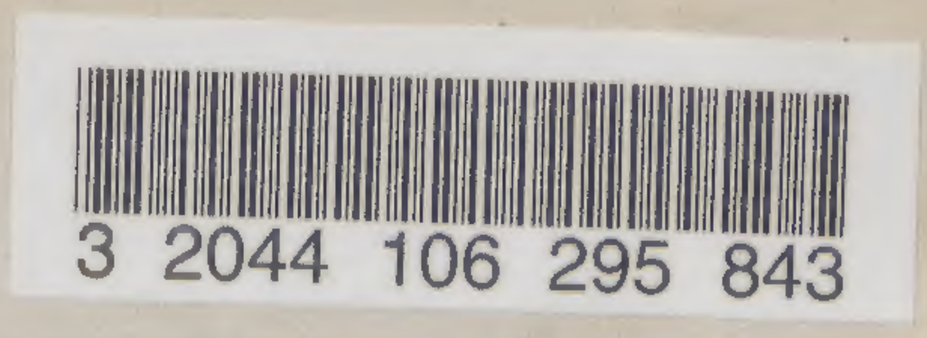
With regard to the fifth part of the question, I would refer the honourable Member to Lord Elgin's despatch which is printed at page 386 of Cd. 3189, and from which he will see that the Commissioner of the East Africa Protectorate has been requested to consider whether some arrangement cannot be made for stopping the trade in question. [19*th December*, 1906.]

* 560 square miles is less than 24 miles square—surely not 'too large and difficult'; in fact, as we should say, quite inadequate for a reserve of the larger game animals.—EDITOR.

† This is just 32 miles square.—EDITOR.

‡ An examination of the Blue Book will show that the Colonial Office concurred with the Society, who recommended that the minimum size of tusks allowed in British Protectorates should be raised to 30 lbs. Subsequently, it appears that as regards Uganda this ordinance was withdrawn. The natives of Uganda have therefore the special privilege of selling undersized ivory, and a special ordinance has been passed legalising the transit of undersized Uganda ivory through British East Africa where the normal limit of 30 lbs. is enforced. —EDITOR.

LONDON: EDWARD STANFORD, 12, 13, & 14, LONG ACRE, W.C.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